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A DICTIONARY
OF THE LEADING
TECHNICAL AND TRADE TERMS
OF
Architectural Design and Building Construction.

BEING PRACTICAL DESCRIPTIONS, WITH TECHNICAL DETAILS OF
THE DIFFERENT DEPARTMENTS CONNECTED
WITH THE VARIOUS SUBJECTS.

*WITH DERIVATIONS OF AND FRENCH AND GERMAN EQUIVALENTS
OR SYNONYMS FOR THE VARIOUS TERMS.*

BY THE
EDITOR OF "THE INDUSTRIAL SELF-INSTRUCTOR."

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PREFACE.

INASMUCH as in the introductory matter information is given on the various points which it is necessary the reader should know in relation to the plan on which the work is based, its scope and scheme, little needs to be said here by way of preface, further than this. That the matter originally appeared in the *Technical Journal and Industrial Self-Instructor*, as embracing the leading terms in one of the classes of technical knowledge and practice, this class taking up only those terms connected with Architectural Design and Building Construction. Forming thus part of a general scheme, the number of terms was at first greatly restricted, as a certain space only could be given to the class. But from the interest which the matter of the Dictionary created, and from the practically useful purpose which it was obviously fulfilling, it was ultimately determined to conclude the work with a series of additional terms. This gave a completeness to the Dictionary, embracing, as it then did, nearly if not quite the whole of the terms connected with Architectural Design and Building Construction. In this way the volume has assumed its present form, affording a facility for ready reference in ascertaining the meaning of the trade terms in one of the leading branches of technical knowledge. This arrangement left other branches—such, for example, as that connected with Mechanical Engineering and Machine Making—to be treated in the same way, but designed to form separate volumes for ready reference, suitable for both practical men and general readers.

A glance at the pages of the present volume, and a perusal of the introductory matter presently to be given, will show the intelligent reader that they make up not merely a dictionary or glossary giving the general and accepted meaning of the term. It is this, but something more is added; and added, we believe, for the first time in a work of the kind. For, in place of a very brief, bald explanation of the term, a concise description is given of leading points of the subject, not only interesting but practically useful in character. To this is added, whenever the origin of the term will throw, as it very frequently does, a practical light on the subject which it indicates or with which it is connected, the derivation or linguistic root of the term.

June 30, 1949 Howard
11-25-52, 1949, C. A. ...

Still further to add to the utility of the work, the synonyms or equivalents in the French and German languages of the various terms are given. For the Technical Dictionary, as now presented to the reader, a reasonably fair claim, then, at once for novelty in its scope and scheme and for completeness in the way in which that scheme has been realised, may with all modesty be made. To aver that no mistakes have crept into its pages, that no omissions have been made in their matter, would be to claim for it a perfection which does not fall to the lot of the work of human hands. At the same time it may be permitted us to say that every effort—including a patient research of which if its extent or range and the time it occupied were named might surprise some readers—has been made to insure accuracy and completeness. In conclusion, and in view of what has been here and will in the introductory matter be presently given, the Editor may express the hope that the volume as it now appears will prove to be of some practical value to the increased and daily increasing numbers of those who take an interest in technical and trade subjects connected with the important departments of Architecture and of Building Construction.

INTRODUCTORY.

MANY circumstances have conspired during recent years to give to technical work and processes, and the sciences on which these are based, a prominence, and a place in the regard of the community generally, which only a comparatively short time ago but few even of the most sanguine could have expected—fewer still could have foretold. From a variety of causes too numerous to name here, scientific investigation has been pushed forward with so much vigour, has entered a domain at once so new and so wide, that discoveries marked and numerous have been made, which, applied to practical work, have opened up new classes of labour that have given employment to vast numbers of workers and demanded the application of enormous capital. Following upon this new vitality in applied science, and in large measure created by it, came an increased desire for scientific knowledge, leading in time to a wider range of scientific literature. And as the discovery of new processes, of new materials, and of new and improved methods of making and working old materials, brought into existence new trade names and technical terms, scientific literature became of necessity marked by the frequency with which these were used. And in process of time, and as an almost necessary consequence of the increased facilities afforded by journalism, the desire to give readers information on new industrial processes, and of readers to have this, the columns of current literature began to be invaded, so to say, by a host of scientific names and technical and trade terms, the great majority of which might be said to be altogether unknown to the wide circle of general readers. It was only through the context, or perhaps, as in many instances, by some remark made by the writer, that their meaning could be guessed at; but, like many guesses, the conjectures were at the best vague and unsatisfactory. And when readers of a higher because more inquiring class, anxious to know what the terms were which they so frequently met with in current literature, turned to the ordinary dictionaries as the likely sources of information, they only turned to them to be in the main disappointed. Nor is the reason for this disappointing deficiency far to seek. It is not merely the fact that many of the terms of applied science and of general technical and industrial work are of such recent introduction that it is only the newly published dictionaries of the ordinary class which can possibly give them, but it is this other fact—that the technical and trade terms are, from the causes above alluded to, so exceedingly numerous, that if they were given an appropriate place in ordinary dictionaries these would assume such portentous bulk, and be necessarily, as a result of this, not only difficult of reference, but of such increased cost, as to place them out of the convenient range, and beyond the

means of many purchasers. Hence has arisen the demand for technical dictionaries or glossaries, as part not merely of the necessities of readers of general or current literature, but of students of science as applied to industrial or technical work. But here, again, in the attempt to meet this desideratum in practical literature, the difficulty or rather the difficulties above noted are encountered, and have to be met with in one way or another. For the number of branches of industrial processes, of sciences applicable to practical work, is so great that when ranged systematically into classes, the list becomes a very long one. Again, the number of terms in each class are themselves so numerous that when the whole of all the classes are attempted to be compressed within the range of one volume, it is necessary to give but the baldest and briefest explanation of each term in order to keep its size within fair bounds and the price so moderate as to meet the often limited means of workers and students. But while this plan may meet the necessities of general readers (although in one sense it does even this in an unsatisfactory way), it falls far short of those who are practically and from business reasons interested in the study and practice of technical trades and sciences. For a class it is necessary that the information given along with each term should be as full and complete as possible—full enough, at all events, to convey what will be of real practical and suggestive value. If it falls short of this, it fails to meet the first necessity of a practical work designed for practical people. The only way, therefore, in which this necessity can be met is to take what in point of fact is the natural division into which the various departments of technical work fall when systematically classified, and give one part or volume of the Technical Dictionary to the terms of one of those classes only. Or, as some are of less importance, so to say, than others, where one class will not yield “terms” enough to make one fair-sized volume, two classes should be taken up by it, care being taken to choose two classes the subjects of which are cognate to each other. This is the principle or system which has been adopted by the publishers of the present volume, which takes up the terms of one of the most important classes of technical work. One advantage arising from the adoption of this class or sectional system of treatment has this great practical value : that each class of workers, or of those interested in or connected with the special class of technical work chosen as the subject of one part or volume, will find under one head and arranged in alphabetical order all the leading and important terms connected with that one special class.

A glance at the pages of the Dictionary which follows, and a somewhat more careful perusal of the matter given under but one or two of the terms in a few pages, will enable the intelligent reader to appreciate the advantages which flow from the adoption of the sectional or class system of treating the work of a Technical Dictionary. What these are it will be right in the interest of the reader to detail somewhat fully, inasmuch as in doing this some points of great interest will be explained and their practical value enforced.

In the first place it will be observed that, in place of a few words giving in baldest fashion the meaning of any given term, a pretty full explanation of it is met with. In the explanation thus given it has been the aim of the writers to give as much practical information as possible, and to lead the student to think for himself and to mark the salient and suggestive features likely to be of service in actual work. In the second place the intelligent reader will observe that in nearly every case the derivation or linguistic root of the term is given. The value of this information is not patent to every

one, but it carries with it so much that is of practical importance, that a few remarks in connection with it will be of some service to the student. The general or popular notion in regard to derivatives, or the linguistic roots of words or terms, is that they are interesting, or to put it in the popular phrase, it "is nice to know them." But this gives a very restricted value to a derivation. That value is, in point of fact, much higher. For in almost every case the root or derivation of a scientific term, where it is known, throws so much light upon the meaning of the word or term, is so closely connected with what the subject known by the term is, that when one knows its derivation, one has a much clearer conception of what is the science or scientific point which the name is used to designate. The scientific or technical term or name of an art or science, when it is examined in a proper way—approached, so to say, from the right side—will always convey a direct and simple meaning; and, further, when the meaning is understood of a scientific term, the student has gained some knowledge of a scientific fact or principle. Thus the scientific names given to scientific facts or principles are generally given in such a way that it does not require any exertion of the memory to remember the name separate from that required to remember the fact or principle. The name gives, in truth, the key to the fact or principle or nature of the thing. A very good illustration of this double office which a scientific name given on this principle serves is met with in one of the terms of the science of geometry—pentagon. When we find out that the word is based upon or derived from two Greek words, *penta*, five, and *gonia*, an angle, we know that it is a figure which has five angles, and as the angles must be formed by the meeting of lines or sides there must be five of those sides or lines; hence one immediately knows that the term pentagon means a five-sided figure. The term geometry itself has its meaning made clear when we know its two linguistic roots—*gē*, the earth, and *metron*, a measure—the science of measuring the earth or land. This science had its origin in Egypt, where it was necessary to measure the cultivated lands within the boundaries of the plots allotted to different individuals; and as this was one of the first necessities or outcomes of early civilisation, that each man should know his own land and not encroach or be encroached upon by that of others, the name was thus given. But as the greater includes the less, the art or science of measuring other things besides land was called by the same name. Another illustration of the fact above alluded to—that a scientific name when analysed, or its derivatives shown, gives the meaning of the object and also explains the purpose for which the thing is used, or in other words that the name suggests the use just as its use at first suggested the name, is met with in the word stethoscope. This is derived from or based upon two Greek words, *stethos*, the breast, or as we call it the chest of a human being, and *skopeō*, I look into or inspect. A stethoscope is therefore a chest inspector, and this inspection is made through the medium of sound communicated to the ear by the agency of the instrument, which is made of wood, a good conductor of sound. By this, the nature or character of their sounds, the medical man knows the condition of the lungs or bronchial tubes of the patient examined almost as well as if he could see their internal condition—that is, inspect or examine them,—the medical man of course knowing from long practice what particular sound distinguishes healthy from unhealthy action.

As a rule with few exceptions, all scientific terms are based upon or have their linguistic roots in one or other of the two classical languages, the Greek and the Latin. The reasons for this are not difficult to account for.

In the first place very many of the sciences, at least the foundation of many of them, were known to the Greeks and the Romans, who naturally gave Greek or Latin names to them; and as a matter of course, when other nations became acquainted with the sciences they retained the Greek or Latin names for them. In the second place the Latin language was for a long course of generations the chief, almost the only language of civilised peoples; and when other and what are called modern languages arose, Latin for a long time still remained the chief medium by which the learned or educated men of all civilised peoples wrote, conversed and corresponded with other learned men. And the third reason for the retention of the classical languages as the basis or root source of modern scientific names is that all educated men now have a knowledge, more or less profound or complete, of those languages, especially that of the Latin, the use of which is for obvious reasons more extended than that of Greek. The use of the classical languages in this way is even more convenient for those who have not an educated knowledge of them. For it is obvious that if scientific names were based upon words of the French language, one would require to have a good knowledge of it before he could understand the meaning of the terms. This would also apply to other languages, as German, Italian, etc. But by having the classical languages as the basis of scientific terms, as all educated men are more or less familiarly acquainted with these languages, the peoples of different nations can all understand equally well what the term exactly means. To those, again, who are not acquainted with the Greek or Latin languages, if they have, as in the present volume, the derivatives or linguistic roots of such terms as are based upon those languages, they at once have the key to the meaning of the terms, a key which is readily obtained by turning to the term in its place in the alphabetical arrangement of the Dictionary. Thus provided, they are practically independent of dictionaries either in Latin or in Greek.

But many of the technical terms in use have origins quite apart from languages such as the Greek or Latin, and even from modern languages. Thus, some sciences have the origin of their names in the name of a place or of a district, or derive their name from that of the inventor or discoverer. Thus the name of the science known as magnetism is derived from the Greek term *magnetes*, and this from the district of Magnesia, near a town in which—Heracleum—the peculiar stone which we call a “lodestone” was found. This stone has the property of drawing or attracting metals to it when placed near it, and of imparting the same property to a metal, so that it can attract another metal placed near it. A bar of metal having this property given to it is said to be magnetised; and if freely suspended it always points in one direction—that is, to the north or the “pole star,” the pointer, as it is called, of the constellation known as “the Plough,” which is always due north. Hence the derivation of the word lodestone, which comes from the Old English word *ladan*, to guide or direct to, as the magnetised bar of iron, the needle of the mariner’s compass, leads, directs, or points to the pole star, otherwise called from this the lodestar, for which the technical name is magnet. An example of a name of a science derived from the name of the discoverer is that of galvanism, Galvani, the celebrated philosopher of Bologna, being the discoverer. Many examples of this kind could here be given, many machines and processes of modern times being known by the name of their inventors and discoverers. A well-known example is that of Bessemer steel, from the name of the discoverer of the process, Sir Henry Bessemer. Another well-known example is met with in the term “macadamised road,” from the name

(Macadam) of the inventor who brought out a peculiar system of constructing roads. In carpentry the form of roof known as the "Mansard" embalmis, so to say, the name of its inventor or designer.

But while there are so many technical and scientific terms which have a distinct figurative meaning, these for the most part being based upon the Greek or the Latin, there are others which have no such metaphorical meaning, being simply names and "nothing more." In some terms the name has been developed or changed from its original figurative or metaphorical meaning, and this by a series of gradual changes. And to the student in comparative philology, which is the science of tracing the course of formation and comparing the words of different languages, there is a wide field of most interesting investigation opened up in this direction. In this connection, and in that of the general roots or bases of technical terms, the Technical Dictionary which forms this volume is not designed, it should be scarcely necessary to say, to teach the student Greek or Latin or French or German, nor to give examples of philology as such. It aims only at the directly practical purpose of showing how a fair knowledge of these languages may be profitably used in studying scientific and technical terms; and to those who have not an educated acquaintance with these languages, the deficiency is made up by our giving the roots or derivatives of each term according to the language on which it is based. And amongst the languages referred to, the reader will find that the Old English or Anglo-Saxon plays an important part.

But while it is comparatively easy to trace the derivations of many of our scientific and technical terms, it is by no means an easy—in many cases it is quite an impossible—thing to trace the meaning of terms employed in many of the special trades or manufactures. Not a few of the names or terms have had their origin apparently in pure whim or fancy; many are positively jocular or humorous. Sometimes they are given to an object, as a machine or tool or a part of construction, from some fancied resemblance to a natural object. An example of this is met with in the name "throstle," given to one of the machines used in the cotton trade, and this apparently because the noise it makes from the high speed at which some of its parts revolve has a fancied resemblance to the song or chirrup of the bird known in the north of England as the "throstle," in the south as the thrush, and in Scotland as the mavis. Then, again, there is often a tendency to contract or to vulgarise terms, so that they have in many cases ultimately assumed such a grotesque form that their origin has been nearly lost sight of. And there are others of which it is now quite impossible to have even a faint conception as to how they originated. In such cases we cannot even conjecture. In others conjecture is open to us; and a little consideration is only required to show that it is so common-sense in character that we may safely conclude that our conjecture is correct. Some trade terms are purely local in their origin and use, and it affords a curious object of study to trace the reasons why such names have been given. Taking the subject as a whole, we have said enough to show the important part which derivatives or the linguistic roots of technical and scientific terms play in helping us to understand their meaning, and not only this, but in giving us frequently not a little information as to the subjects themselves. And enough has been said, moreover, to point out to the reader how wide and how interesting a field of investigation is thus opened up to the student, in connection with our technical and trade terms.

We have now finally to offer a few words by way of explanation with

reference to the French and German equivalents for the technical terms, which form a marked feature of our Technical Dictionary. These synonyms do not serve merely to throw an additional interest around the general subject, but they possess a special and a directly practical value to those interested in our sciences, arts, and industrial trades and callings. Of late years, chiefly through the influence of large and important trade and commercial transactions, the intercourse between the three peoples—the English, the French, and the German—has become very wide and extended, and it is becoming more extended daily. And with ever-increasing business relationships this intercourse is becoming the closer and the more intimate, the more extended it becomes. This has naturally brought about a very decided interchange between the languages of the three peoples, in their spoken, written, and printed forms. A knowledge of the languages in which business is transacted, either orally or by letter, is obviously of great value to those living in different countries who have the tie or bond of a business relationship existing between them. But the value of this knowledge is not confined to directly-carried-on business connections only. A vast number of works on technical, trade, and commercial subjects are published in France and Germany, and many of these are of the highest value. To those who have acquired a knowledge of French and German these treasures are placed within their reach, as the books for the most part are easily obtained in this country through the agency of any respectable bookseller. This adds another reason to the number which now urge so many of our technical and trade students to study the above languages. But, although one may be acquainted with French and German to such an extent at least as to enable him to consult, and intelligently understand dictionaries in these languages, the same difficulty we have already noted in regard to English dictionaries is found to exist—namely, the fewness and in some cases the entire absence of technical, trade, and scientific terms. To meet, then, the above-mentioned wants, which are entirely of a practical character, as well as to give an additional educational interest to our volume, we append in nearly every case the French or German equivalent for the English terms named. These do not always give the conventional or purely technical terms as used abroad. This, indeed, has for the most part been avoided, as they obviously (being, as a rule, only conventional, and many of them purely local) would not convey to the English reader what he is desirous to learn—namely, what are the French and German equivalents for his English terms. And to make these equivalents still more practically useful, and their meaning clearer, in some instances a free translation is given.

Lastly, a wide and a legitimate desire on the part of students and readers is to have some acquaintance with the method of pronouncing the French and German words or the equivalents of the English terms in those languages. This desire has been gratified in our pages.

By the combination of purposes or objects we have now in these introductory remarks named, our volume will obviously serve the student in a threefold capacity. First, it will be a Dictionary of Words, or glossary giving the meaning of terms; second, a Dictionary of Derivations, showing the origin of terms, or how they have been constructed or formed; and third, a Dictionary of Pronunciation, so far as French and German words are concerned. It is hoped that a volume is now presented to the reader which will take a useful place in practical English literature.

PRELIMINARY DISSERTATION.

PRELIMINARY DISSERTATION.

Introduction.

BEFORE giving an outline of the general plan of the Dictionary and drawing attention to some of its characteristics, the conductors of "THE TECHNICAL JOURNAL" believe it right to allude to the practical reasons which led them to decide to make it a part of the work, and to name some of the considerations which, while they show the high utility which it will have to the General Reader, will also be found to have a close bearing upon the special subject of Technical Work and Education.

We have elsewhere passed under brief review some of the causes which have given such a marked prominence to the applications of science to all classes of technical work. Scientific investigations have been of late years pushed to such a point of advance, and the discoveries consequent upon these have increased so rapidly, that quite a new phase has been entered upon in what may be called the application of pure science to practical work in all branches of national industry. Trades and manufactures altogether new have been established, some of which, considered individually, have given employment to numerous workmen, and have put into circulation enormous capital. Materials altogether unknown but a few years ago, useful in a wide range of the arts and sciences, have been discovered, many of them the products of what at one time were the waste or refuse substances, so utterly useless that they were in every sense of the term nuisances. Other materials, although old, and long known to the practical man, have been so improved in the process of manufacture that they may be said to form materials altogether new. While in other cases what were produced or made in such limited quantities that they were in some instances very dear, or so difficult to be got, that they might be called products of the chemical laboratory rather than for use in the practical workshop, are now produced in large quantities to which there seems no limit but that of demand.

New Trade Processes and Advanced Technical Work the causes of a New or more Extended Nomenclature.

All this has of necessity created, along with the new processes, a new nomenclature. It has forced upon men the creating or coining of new words to designate the new objects or goods produced and manufactured, and the new combinations of substances or materials employed. Hence have arisen of late years new sets of words and terms which have become part of our language. But although these have been in daily use, it has chiefly been in those confined circles in which the new processes or manufactures with which they were connected, and which may be said to have given to them their existence, that they have been chiefly—indeed in some instances almost exclusively employed.

But on the wider spread of scientific knowledge has followed a wider extension of scientific literature. In this, as the new discoveries and processes dependent on them were described, this nomenclature was of course adopted, and thus it came about that the new words and terms became embalmed, so to say, and found an abiding place in English literature. But this, like the new processes which were known only completely to those who followed their practice, was confined to classes in numbers but limited at the best.

The Extension of Technical Education and Literature giving a Wider Field for the use of Technical and Trade Terms.

But as in progress of time the importance of technical education forced itself upon the public mind, and the general reading of scientific works became more and more a marked feature of modern times, the new words and terms were brought before an infinitely greater

number of readers than before, and attention was thus more widely drawn to them.

By a combination of circumstances, the nature of which can be easily understood, the new scientific and technical words and terms, from being used in special works, gradually spread till they invaded, so to say, the fields of general or ordinary literature. But while they were used with a frequency and familiarity which seemed to indicate a knowledge of their meaning on the part of writers for the general public, it was, unfortunately, but too frequently the fact that general readers, for the most part, were in almost total ignorance of them. In some cases they might from the context gain some glimmering idea, more or less faint, of what the words and terms conveyed. But this was all, and at the best it was but little. Nor could a result other than this be expected, nor were the general public at all to blame for it. For, however frequently a desire to know sent them to the ordinary or popular dictionaries, to gain the knowledge, it was not always that the dictionaries supplied the information—indeed, but seldom. For it must be recollected that with the great advance of applied science bringing about a rapid progress in new discoveries and processes, the creation, so to say, of the new words and terms relating to them was far in advance of the publication of a series of new dictionaries or fresh editions of old ones,—and it was only a new series which could meet the difficulties arising from the new condition of things in scientific and technical progress. And it is by no means true that new dictionaries, of a popular or ordinary description, give the new technical and scientific phrases—which, notwithstanding, are largely used in ordinary or everyday literature. So numerous and so varied in kind are the different classes of scientific and technical work, and such a multitude of words and terms are employed by them, that if they were attempted to be given in every ordinary dictionary, the result would either be on the one hand a portentous bulk which would be exceedingly inconvenient for purposes of ready reference; or on the other, in order to avoid this, the crushing out of a multitude of words useful in everyday life which could not, or ought not to, be dispensed with. From what has been said, it will not be matter of surprise that there should be a wide field of practical usefulness amongst those engaged in the actual work of technical industry for a dictionary of the leading terms used in connection with its varied and various departments. And we may perceive how much this field may and will be extended, when we consider the vast number of those who are only generally—not specially or from a business point of view—interested in this class of work.

The Comprehensive Aim of the “Cyclopædic Dictionary.”

But while the “Cyclopædic Technical Dictionary” will give a marked place in its pages to terms which may be said to be specially applicable to technical industry, it has for its aim a wider and yet a highly practical purpose; for it proposes to give the leading terms in those general sciences which, “applied,” have made them of the highest possible service to technical industry, in giving greater precision to its work, and in extending it over a wider area. Although those terms of the general sciences cannot be said to be new in the same sense which can be employed in the case of new discoveries, new processes and inventions recently introduced, they are, nevertheless, new to a vast number, especially of youthful readers, who do not know, cannot even guess at, their meaning, however frequently they may have met with them in special or in general literature. And this chiefly from the circumstance that they are derived from the Greek or Latin—which to so many are sealed languages—and which, even to those who have learned these languages at, are not easily remembered when away from school.

Having thus shown some of the directions in which a dictionary of the class now under consideration can be eminently useful in practical work and study, it remains for us to describe the plan upon which it is arranged and some of its characteristics. We prefix the term “Cyclopædic” to our title, to signify that it is something more than a mere dictionary—that is, using this term in its ordinary sense, in which the meanings or definitions of the words are of the very briefest. In the “Cyclopædic Technical Dictionary,” while the *Definitions* will of necessity be brief, they will be nevertheless so full, and will as a rule contain so much specific information on the subject, as to warrant in large measure the adoption of the prefix we have named above.

The Systems of Arrangement open for Adoption in the Dictionary.

There are two methods of arrangement open for adoption. First, what may be called the normal or ordinary dictionary form. In this all the words and terms follow one upon another, arranged simply in accordance with their place in alphabetical order. The terms of all the classes of technical and industrial work are thus mixed up or intermingled; so that a term in Mechanics may follow upon one in the class of Chemistry, while that may be preceded by a term in the divisions of Masonry or Carpentry, and so on throughout all the numerous classes of technical science and industrial work. For

the general reader the dictionary must therefore be completed before it can be consulted with certainty that the word in any division or class of technical or industrial work will be found in it.

The second method is based upon a principle essentially distinct from that employed in the first. It may be called the sectional or class arrangement. If the reader will glance at the paper in our text entitled "Technical Education in Relation to our National Industrial Work," he will find a statement of the classes or groups under which technical and industrial work are practically ranged. From this it will be observed that, while there is a nexus or chain which binds the whole of those classes together in what may be called the bond of a common origin and a common aim or object, there is nevertheless a wide variety of circumstances brought into existence by the actual facts of daily life and work, which have caused certain classes of technical and industrial work to be ranged under one head or general designation while certain other classes have been ranged under another head. The practical result is this—that in the popular mind at least, one class of work is considered to be essentially different from that of another. And this popular may also be said to be the accurate conception. For while, as we have said above, all the classes of work are bound together in principle by a scientific bond common to them all, still the application of science is so different in kind in one case from that in another, that the work, for example, of the carpenter is quite different and distinct from that of the machine maker. The same may be said of any two of the classes of work which are generally held to be distinct or different from each other. And this although all are bound together, as we have said, by the principles of the science of Physics, or the science of bodies regulating all material phenomena, and which may be called the Philosophy of Materials as distinguished from the science of Metaphysics, or the Philosophy of Mind, which takes cognizance only of mental characteristics and phenomena or manifestations.

Taking the list as given in the paper on Technical Education above alluded to, of the classes or divisions of technical and industrial work as a fairly accurate and complete one, the second method now under consideration of arranging the "Cyclopedic Technical Dictionary" is simply this. Any one class or division or section is taken—as, for example, that of Chemical Industry, or, as it is sometimes called, Applied Chemistry: all the technical terms and words used in all the branches of this section—and those branches are very numerous—are collected and presented to the reader in one complete body. To facilitate ready reference, the alphabetical order is of

course in such a sectional arrangement that adopted for the words and terms. The same is done in all the other classes, such as those of Farming, Gardening, or Rural Arts and Sciences, Building Construction, including Carpentry, Masonry, Joinery, etc., Machine Construction, General Science, etc., etc.

The Sectional System adopted in the Dictionary.

After mature consideration of all the points involved, preference has been given to the last-named method of arrangement, not because the conductors believe that it is best both from a practical and an accurate—that is, a scientific—point of view, but simply because it falls in best with, and meets, the practical necessities of their publishing and editorial arrangements. That these, in connection with technical and industrial work, with the varied and extensive interests it has to consult, must necessitate a pre-arranged and a determinate plan of operations, will be obvious to most readers. One advantage this class or sectional arrangement will possess, if it has no other to recommend it, is that each class of workers, or of those interested in any particular branch of technical and industrial work, will find under one head, and arranged in alphabetical order for easy reference, all the leading or important "terms" connected with it. This advantage will be found to be so practically useful that it may be said to outweigh all considerations connected with, and to be the most cogent of reasons for setting aside, the ordinary or continuous alphabetical arrangement, and adopting in place of it the Sectional or Class System.

Derivatives or Linguistic Roots of Technical and Trade Terms.

We now come to another important feature of our "Technical and Trade Dictionary," namely, the derivatives or linguistic roots of the terms of which the meanings or descriptions are given. And here pointed attention is drawn to the fact that these "derivatives" are not merely, and, as some seem to think, solely interesting, but they carry with them in almost every case practical information of the highest value. It may almost be said, with perfect truth, that there is scarcely one of the roots or derivatives of scientific terms which does not throw so much light upon the meaning of the term or word, that the reader has a much clearer conception of what the point in science is which the word or term is meant to convey. This point carries with it so much of what has an immediate and direct bearing on the whole subject of technical

education and self-culture in scientific and industrial subjects, that we purpose glancing somewhat fully at its general features.

Practical Value of the Derivatives or Linguistic Roots of Technical Terms— Various Examples of Scientific Terms.

The language of everyday life has been well described as "powdered metaphor," for if we take the trouble to examine some of the commonest and most frequently used words, we shall find that originally they contained a figurative meaning, which has only lost its prominence through our familiarity with it. Sometimes, again, words preserve a historical fact,—tell us, for instance, who first discovered or invented a thing, whence a thing first came to this country, and so on. The same remarks may well be applied to the learned language of General Science. At first the strange terms of science seem absolutely to bristle with difficulty; it looks as though there would be as much labour in learning the mere names of the things with which a science has to do as in mastering the facts and truths about them that the science reveals. But this appearance is not borne out by fact. The terms of an art or science, although to a beginner strange and uncouth, will almost always yield a simple direct meaning, when they are approached from the proper side. And in many cases the student will find that in learning the meaning of a scientific name or term he has also learned a scientific fact, and that in understanding one word he has the key to a dozen more. Now, the proper side from which to approach is the side of Etymology. Just as Comparative Philology—that is, the science of tracing the course and comparing the words of different languages—has unravelled and is still unravelling some of the great problems of the past, so Etymology—that is, the study of the roots or sources of words—will clearly explain to the most unscientific student the meaning of terms used in science. (The word Etymology is derived from the Greek *etumon*, and this from *etumos*, signifying the real or true word, and from *logos*, a speech. The Latin word is *etymologia*. The French is almost identical with our own term, *etymologie*, pronounced like eh-or ai-tea-moll-oh-gee—the *g* soft, as in our word "fulgent," or as if combined with the letter *j*. English pronunciation, etty-moll-oh-jee.) The reason of this is very simple. Men do not like to increase their own difficulties, and so, when they find out any new fact in science, they do not like to give it a name that will require a separate exertion to remember, in addition to the exertion of remembering the

fact itself. Thus they try to give names that will describe the facts, or at least, that will describe some part or something connected with the fact. For example, when M. Laennec discovered how to make an instrument that enabled doctors to examine the state of the chest of a patient, he called it by a name that meant "chest-examiner"; and so when any one heard the name of the *stethoscope*, he knew what its use was. No one had first to learn its name and then to ask what it was used for. The name suggests its use, just as its use first suggested its name. The word is from the Greek *stethos*, the breast, or chest as we call it, and *skopeo*, I inspect or look into. This is an example of what is the case in most scientific names: they describe sometimes the shape or appearance of what they name—as in the case of geometrical figures; as in the "pentagon" or five-sided figure (from the Greek *penta*, five, and *gonia*, an angle); sometimes the use of a thing—as we have seen; sometimes the inventor of a thing—as, for example, in the case of galvanism, from the name of the discoverer, Galvani, the celebrated Italian philosopher of Bologna; and sometimes the place where the thing was first made or found—as in magnetism, and so on. The derivation of this latter word is very curious and suggestive to the student of Etymology. It means the attractive power of magnets, particularly the science of magnetism, which the young reader will perceive is so general that it conveys nothing definite, throwing one back upon what it is. A "magnet" generally defined is that which has the property of the loadstone—properly "lodestone"—that is, of attracting matter such as metal, or drawing it towards it. A metal bar freely suspended under the influence of the loadstone—or "magnetised," in popular language—points always in one direction, that is, to the north or the pole-star, called otherwise the load- or lode-star—"the star which guides," remaining always in the same position in the heavens. This name lodestar is derived from the Old English word *lædan*, to guide or direct. A lodestone is therefore a stone or ore which guides or directs (to the north or pole-star) This stone or ore having this peculiar, and to man invaluable property, is said to have been discovered in the town of Heracleum, near Magnesia; hence the Greek name given to it—*magnetes*.

Latin and Greek the Source of General Scientific Names and Technical Terms.

Of course, in inventing or giving names, men used the languages that they were familiar with, or those that they thought would be most useful; and in most cases of hard scientific names, it is Latin or Greek that has supplied them. There are several reasons why this is

so. In the first place a large number of sciences were known to the Greeks and Romans, and when other nations learned those they took the names they found already made. Then Latin was for centuries the chief language of civilization; and long after modern languages arose, Latin remained the learned language, which almost everybody endeavoured to speak and write besides their own. And even yet the learned men, the scholars of all civilized countries, study Latin and Greek, although they may not know a word of any modern language except their own. It is natural, therefore, since some of the terms of science came down to us in Latin or Greek form, that the new terms should be made after the same fashion in the same language; and secondly, that learned and scientific men should use in the middle ages what were considered the only scientific languages; and thirdly, that even in modern times, terms should be formed from the languages that all learned men understand.

Even to one who has not learned either Latin or Greek, it is more convenient that new terms should be formed from words in these languages; for otherwise he would require to know French very well in order to understand the meanings of terms coined by Frenchmen; German for German terms; Italian for Italian, etc., besides Latin and Greek for those coined by Romans and Greeks. And it is more convenient for scientific and learned men themselves to have a language common to all: for then they are able to understand *exactly* what a foreign scholar means when he uses a Latin term; and exactitude is one of the first requisites in scientific study. When once, therefore, a knowledge of the two great classical tongues—Latin and Greek—is acquired, the main difficulties connected with scientific terms melt away like snow-drifts before the sun. The chief thing to be learned after that is merely how to apply the knowledge; for just as the whole art of arithmetic, even in its most intricate processes, consists entirely in the use and adaptation of the four simple rules, so the explanation of scientific terms depends wholly upon the mode in which the simple ideas indicated by them are to be understood.

The Latin or Greek Name gives a Direct Clue to the Meaning of the Term.

It thus follows that any one who has a fair acquaintance with Latin and Greek, together with a fair proportion of intelligence, need not either blench before the crabbed rows of technical terms in a new science, or even depend wholly on his dictionary. He has in his own hand a key to the meaning of the terms; and if

he thoroughly realizes their simple root-meaning, he will probably discover that he exactly understands their technical force.

The terms used in geometry give excellent illustrations of what has just been said. The very name of the science itself contains an interesting historical and descriptive fact wrapped up in the thin Greek mantle. *Ge* signifies the earth, and *metron* a measure; together they mean earth-measurement, and easily remind us that the traditional first use of geometry was to measure out land, as in ancient Egypt, where the science originated. Thence it requires no great intellectual stride to see how the word came to mean other measurement of spaces, while still retaining its original form. Certain chief terms in this science—as line, square, figure, arch, point, etc.—can hardly be described as being peculiar to geometry, for they are the common property of every one who can speak English, even though he has never heard of the *Pons Asinorum*, the crucial test of the student of Euclid's Geometry. And even if we exclude from this list such a word as angle, it is only for a moment. Angle is derived from *angulos*, bent or crooked—an excellent popular description of an angle, which is the corner made by a bent line. From this basis it is easy to proceed to the various kinds of angles. It is easy to remember, even to discover, that a right angle is the angle made when the line is so bent that one part stands quite upright (*rectus*) or perpendicular to the other. An acute angle (*acutus*=sharp) can be nothing else than a sharp corner, *i.e.* sharper, or as it is termed, less than a right angle; while an obtuse (*obtusus*=blunt) angle must, in like manner, be a blunter angle or corner than a right angle. Next, a brief thought will show how a reflex angle (*reflexus*=bent back) must be made when the line is bent back upon itself, and so forms an angle *greater* than two right angles.

Not less plain are the names of the geometrical figures; and a person on learning their root-meanings would be able to draw them at once. Thus triangle (from *tres*, three, and angle, which we know already) can only mean a figure with three angles. A few moments with a pencil show us firstly that such a figure can only have three sides; and secondly that there can be several kinds of triangles, differing in the relative sizes of their sides. All the sides may be equal—a simple fact that is crystallized in the name equilateral (*æquus*, equal, and *latus*, -eris, a side), neither more nor less than equal-sided. Or again all the sides may be unequal; and for that we are provided with the name scalene (*scalenos*=limping, or uneven-legged), uneven. The only remaining case is when two of the sides are equal; and that state of matters is exactly described—not without a touch of

humour—by the word *isosceles* (*isos*, equal, and *skelos*, leg) which means equal-legged, *i.e.* having two legs (like a man) that are equal. The other figures are named quite as simply. Quadrilateral (*quattuor*, four, and *latus*, a side); pentagon (see above); hexagon and decagon (*hex* = six, and *deca* = ten), are self-explanatory; and so through the whole series of numerals, Latin or Greek, till we take refuge in the vague polygon (*polus*, many), or many-sided figure, which may be used for convenience to mean any figure with more than four sides. The phrase “regular polygon” need cause no hesitation. Regular means according to *regula*, or a rule; so the phrase means a figure whose sides and angles obey one rule, and are therefore equal to each other. So in talking about a circle there is little difficulty. Even if we must regard circumference as a technical term, we need only remember that *circum* means roundabout, and *fero* I carry; and by reflecting what part of a circle we produce by carrying a line round about its centre, we see at once what part of a circle a circumference is; and we can recognize that the word from the Greek, perimeter (from *peri* = *circum*, and *metron* = a measure), must mean the same thing, or the measure all round a circle. So diameter (from *dia*, through or across) means the measure or line right across the circle. *Arcus*, in Latin, means a bow; arc must mean something like a bow—*i.e.* a part of the circumference. Chord means bow-string; and in geometry, as well as in archery, it is the straight line that joins the two ends of the arc or bow.

Scientific Terms frequently involving Historical, Personal, and other Interesting and Useful Facts.

In many cases, however, the names are not so descriptive—*i.e.* are not so immediately self-explanatory, except to very profound classical scholars. These are the words formed from the ordinary Latin or Greek names for things, in which the descriptive metaphor has become as much hidden as in many English words. They give no information about what they name; they simply serve as names and nothing more. Thus the word arc describes the shape of the line it names; but the word ornithology (from *ornithos*, bird, and *logos*, discourse) merely tells us the scientific name of the science that discourses or treats about birds; and it involves no historical fact, as geometry does. Most of the names of the sciences are alike in this, as will be seen in the section of the “Cyclopædia Dictionary” devoted to the terms of General Science. Sometimes the technical meaning of

a word has been developed from its original meaning, and a little help in tracing its gradual changes—for the changes are always gradual—is required by the student. Examples of this are given in the section just named, under such words as organ, mathematics, theory, substance, tide, etc. Such changes are very interesting and important, for they very often let us see how a past age used to think, and in what manner it looked at things. Thus in the word substance we get a glimpse of old philosophy. Then again words were often applied to things in a metaphorical way: that is, a resemblance between some scientific object or action and some ordinary object or action was seen, and the name of the latter was in consequence transferred or extended to the former. This we see in such words as mortice, scale, surd, molar, method, problem, and many others. These transferences also give us hints of how the ancients used to think. The place or position of a thing sometimes gained it its name, as we can see in profile, meteor, mural circle, solstice, and others. Sometimes the way in which a thing acted or seemed to act was taken into account in naming it; and so we have plunger, slot, planet, spring. Or again, some one property of a thing was taken as the basis of its name, and thus come mammal and marsupial, from visible parts; and oxygen, narcotic, power, from the effects they could produce; and symmetry, etc., from general characteristics. We have already seen, in reference to certain terms of geometry, how shape dictated names; but even in cases where the shape is not of so much outstanding importance as in a science that actually measures shape and space, we find examples of this. Thus in architecture we have newel and niche; in chemistry retort; and in the other sciences tunnel, siphon, valve, oolite, nucleus, etc. Sometimes a process receives a name that serves to roughly explain its action, as in photography; sometimes an outstanding peculiarity in a thing is seized on, as in palimpsest; and sometimes a general description is given, as in peristyle and parapet. Very often the use to which a thing is put gives it a name, as in pattern, pole, etc. Quite a large number of words contain an interesting historical or social fact. Thus the names of inventors are embalmed in the words galvanism, mesmerism, macadamize, etc.; of places and men connected with discoveries or knowledge in magnetism, orrery, etc. Gleams of light are thrown on Greek social life in the words metropolis and toxicology; and on their astronomy in the name zodiac; and we have a hint of Roman institutions in the familiar term money.

There is thus a most interesting and picturesque field opened up in what at first looks

like the dry and barren region of technical terms. In the "Cyclopædic Technical Dictionary" there are given many examples both of the above-mentioned methods of word-coining and of others which the student will easily find for himself. The Dictionary is not meant to teach Latin and Greek, or French or German, nor to give examples of the science of philology; it is meant simply to show how a fair knowledge of the classical and modern languages may be used to profit in studying scientific and technical subjects. There is thus no attempt made to trace a word back to its very first root, but only to take its genealogy back to some word that an average student might be expected to know. Neither does the section on General Science we have named profess to be an exhaustive list of all its terms, but from the examples that it contains enough knowledge should be gleaned to attack any, even the strangest and most unfamiliar term.

The Derivations of Purely Trade or Constructive Technical Terms.

These remarks, though having special reference to the section which is devoted to the terms of General Science, apply to great extent to other sections which comprise words more purely technical, or what may be called trade terms. In those sections—as, for example, that which gives the terms used in Building Construction, including in the phrase the arts of masonry, carpentry, bricklaying, and the like, as well as of that of architecture, as a fine as well as a useful art—it is not by any means an easy thing to find the roots or derivatives of many of the terms. In the more peculiarly mechanical difficulties of construction, building or machine—that is, those which take up work, not the principles upon which it is based, and the tools and appliances by which it is performed—it may be said that, as a rule, there is now no means of tracing the process of naming, or the reasons why such and such designations were given to certain parts or methods of construction or to tools. Nor need this be matter of surprise if we endeavour to trace the rise and progress of those departments of constructive work. From this it will be seen how purely conventional the names are, in many cases. These are given to the work or to the tools through a mere whim—often, indeed, they convey a kind of rough pun or joke, sometimes a fancied resemblance to some natural object very far removed indeed in its surroundings and associations from the work done or the tool used; while a machine may have a name given to it to keep in memory that of its inventor or first user, or, as has some-

times been done, with a touch of good nature and sometimes of ill humour. Many names also are simply corruptions of more accurate designations which have at first been given to the kind of work done, or to the object, such as a tool or a machine; while in some cases the name is simply a contraction of a precise and definite word in one of the ancient or classic, as Latin, or the modern languages, as French and German.

Some Suggestive Examples of the Curious Origin of Technical and Trade Terms.

Many curious examples of the above cases might here be given; we have space only for a few, but these will sufficiently illustrate them. Taking the last-named case first, in the technical term "plumb," which when applied to an object means that it is standing truly vertical or perpendicular to the line of the horizon or the surface of the ground, we have simply a contraction of the Latin word *plumbum*, signifying lead. The student would at first sight fail to see what connection there was between the meaning of the term and this Latin word; but in tracing it out we find that what seems to be a fanciful conjecture gives us in reality a curious fact in the history of construction. A weight released from the hand at any given height from the ground falls, in virtue of the attraction of gravitation, to its surface in a line perfectly vertical. Any object erected on the ground which had its face parallel to this imaginary line would be vertical, and therefore, other circumstances being equal, stable—that is, would have no tendency to fall to one side any more than to the other and opposite. If the weight, in place of being allowed to drop from the hand to the ground, was suspended by a cord, string, or rope, the tendency of the weight still to gravitate vertically would keep the string or cord also perfectly vertical. We now have in place of an imaginary vertical line one which can be actually seen, and by a simple arrangement this visible line or cord can be compared with the lines of other objects. A heavy weight would keep the cord more securely and perfectly on the stretch than a light one; and as a material not only more easily obtained, but much more easily wrought or hammered or moulded or cast into any desired shape in the early days of masonry than iron or bronze, lead would by our ancestors be used to hang to the line or cord. And as just as likely as not the Romans, who were the most remarkable constructionists of early times, would be the first to invent or adapt a hanging weighted line to practically useful purposes, the Latin name for lead, *plumbum*, would sug-

gest a name for the new building appliance. This in later times, in virtue of the tendency existing amongst working men to abbreviate, already alluded to, would get shortened to "plumb"; and this still later on would be made into plum, and the name of the weight—as distinguished from the complete appliance—would follow, and hence the term "plummet." Another tendency of some workmen is from one cause or another to alter the form of a word or to make it common or vulgar, as compared with its original and accurate form. Hence in some provincial districts, especially in the north of England, we find the term plum—"off the plumb"—is vulgarized into *plim*; and we hear a workman saying that this is "off the plim," or on it, as the case may be; or telling a fellow-workman to set it "plim."

Tendency to Contract and Vulgarize Technical and Trade Terms.

This double tendency to contract and to vulgarize is illustrated in a curious way in connection with a technical term giving the name of a certain part of the colour-printing machine used in the calico trade. This is what is called the "doctor," a name very puzzling indeed to account for. As this appliance or implement is a species of knife or blade, some have traced the origin of the name to the fact that doctors use blades or knives in their painful operations: hence the name. But this fanciful and far-fetched derivation was at once set aside when the true history of the appliance was traced out. The office of the "doctor" is to take off the colour from the surface of the printing cylinder, leaving the colour only in the indented parts or those engraved in intaglio. As it performs its work with a motion like that of shaving, it might as well have been called a barber as a doctor. This clever appliance was invented or at least first introduced in France, and its office gave it its name "conducteur"—that is, a thing leading off the colour. As working men have short time for long words, the "con" would be cut off very speedily, leaving "ducteur" as the name. On being introduced into Lancashire, in this country—what with the tendency to vulgarize (and this is done often so grotesquely that we may say to caricature) words, and what with the then thoroughly national horror of anything French, to say nothing of the difficulty to pronounce the word "ducteur"—its change into the easily-pronounced and to many funny word "the doctor" was inevitable. And so it stands embalmed in this form, and has a permanent place in the technical terms of the calico trade.

Derivatives and their Absence in the case of many Manufacturing Technical and Trade Terms.

The various branches of our manufactures afford abundant examples of technical and trade terms or names which afford little or no evidence in themselves as to how they originated. They have, so to say, no derivative, no root to which we can go back or down to find something which will guide us in the matter. In many cases, so thoroughly arbitrary has been the reason why such names have been given to certain things, that we cannot even conjecture or guess as to it. In other cases some conjecture is left us, and in some this is so common-sense that we may pretty clearly decide that we have hit upon the reason for the name. Thus, in the case of the machine—and a wonderful machine it is in its movements, which are such as make one feel that it can think as well as work—known in the cotton manufactures as the "mule," many have wondered why this odd name should have been given to this machine. But a little knowledge of the trade's history gives us a conjecture which, as said above, seems to be the true reason. Two machines, that invented by Crompton and that by Hargreaves, did in the early days of the trade the work of "spinning," or finishing the cotton slivers or rovings. When a new machine was introduced possessing some of the features of both of these machines, forming a combination, so to say, of the principles of each—just as a cross between a horse and an ass is called a mule, so naturally this new machine, being a cross, so to say, between two others, got to be so called. The same trade gives another curious illustration in this direction, in the name of another spinning machine, called the "spinning jenny," in the early days of the cotton trade. The daughter—a favourite daughter—of the inventor is said to have been Jenny; and as the object of the machine was to save labour, it is said also that he was pleased to think that his daughter, who was herself a spinner, would be saved much hard work by the use of his machine; hence by all these associations the machine itself got to be called by her name. In like manner we find the name "water twist frame" given to the spinning or twisting frame invented by Arkwright, not from any peculiarity in the yarn *per se*, but simply because it was a frame (cotton machines nearly always were called, and some are still called, "frames") driven by a water-wheel, and as on its first introduction showing that its powers went beyond mere hand labour or turning, and required a special motor, and at that time the water-wheel was the prime motor almost always used, the steam engine not then having been introduced as a machine driver. We thus see

that the attempt to trace the origin of technical names, which at first sight appear to be purely unmeaning or nonsensical, may lead to some discoveries not altogether useless, and frequently very interesting, though in many cases all that can be said of our knowledge is that we know nothing, and seeing that so many names have been given from mere caprice, and some for no reason at all, we do not lose if we fail to trace their origin.

From what has now been said, the reader will perceive how it is that in a large number of instances, while giving the definitions or meanings of technical terms, we do not give their derivatives or information by which we can trace their origin. Wherever there is a root from which the technical term, so to say, springs, it will generally be found that its examination will throw a light more or less clear upon the subject or thing named. Enough will at all events be placed before him to set the student thinking; and the faculty of giving thought to what he has in hand is, in conjunction with that of observing things, one of the main elements of success. Nor will it be lost time if, in cases where no origin of a technical name is recorded, from facts not being now attainable, he endeavours to trace or find out this for himself. One of these days, perhaps, some patient investigators may devote themselves to tracing the history of certain branches of our technical work, in order to find out, if that be possible, the points connected with their nomenclature. Should this ever be done, we shall be surprised at the mine of interesting and in some points practically useful information thus opened up.

Limited Area or District over which Certain Technical and Trade Terms are used.

We now come to notice another feature, and that an important one so far as the objects of a Technical Dictionary are concerned. This feature gives further evidence that in a great number of instances they cannot be traced to and are not dependent upon a common root, but have had their origin in one or other of the ways above alluded to. This is that even in any one country the names given to work tools or machines and to industrial processes—the latter in fewer instances, as may be imagined, than in the former—are not uniformly given or equally understood over all its districts or provinces. Hence we have certain names given to certain classes of work, or to certain parts of it, which, while quite familiar to workmen in one district, are unknown to those in another district. So

that a specification drawn up in one part of the country, and which would be understood by the workmen there employed or living, would, so far as many of its technical trade terms are concerned, be as a sealed book in an unknown language to workmen engaged in precisely the same class of work in another and more or less distant part. No doubt this difficulty is practically got over by guessing at what is meant, and the conjecture is all the more easily and likely to be accurately made from the perfect knowledge of the character of the work to be done, the context greatly helping in this. But while this is so in practice, it obviously leads to a difficulty in arranging any one section of technical terms; and this is perhaps more marked in the case of that connected with building construction than in any other. As there are so many names used throughout the kingdom to designate precisely the same kind or class of work—one district, as we have seen, using terms unknown, at least not in actual use, in another district—to give within the section all those names would obviously demand a much greater amount of space than the limits of our work would give. And if we attempted to lessen this difficulty by giving the terms of one or two districts, excluding those of others, we should lay ourselves open to the charge of showing for one reason or another a preference for one to the prejudice of another district. We are therefore compelled, so to say, to restrict our list of terms to that class which has the widest acceptance and is the most generally understood. Thus, for example, in building construction, which is the first section we shall take up, we confine ourselves chiefly to those definitions which being used in London and the districts immediately surrounding, may be called by the name of metropolitan.

Different Districts in the Kingdom have often Different Technical and Trade Terms.

While the scheme and scope of "The Cyclopædic Dictionary of Technical Terms" prevents us from even attempting to give all the terms or names used in different districts of the kingdom, in view of the value of a complete list we may here express the hope that this will at no very distant date be drawn up and published for the benefit of all those interested in technical work and education. This undertaking, from the very nature of its details, is, we fear, beyond the limits of individual ability or of private enterprise. And if the experience of the past is to be any guide as to the anticipation of the future, it is, we fear, utterly useless to cherish the hope

that our Government will undertake this useful work. The examples given us by Continental governments and those of North America in aiding technical work may yet possibly tell upon our Government, who have hitherto displayed a remarkable indifference to all movements in this direction. If the science masters or technical teachers now or henceforth to be sent out from the department at South Kensington, or the New Technical College recently opened in the same locality, were instructed to collect in their several districts the technical trade terms in use there, we should by this means have in possession an amount of information from which a complete list or glossary of British Technical Terms could be arranged. (See a note under the head of "Technical News" on this subject.)

And valuable in a purely business and educational sense as this would be, the writer of these lines has so far an acquaintance with some of the points involved in such a national inquiry, that he is prepared to state that the result of it would be an illustration of the influences of certain local, or what might be called provincial if not national, characteristics in giving a certain stamp of individuality to the names given to work or the tools and appliances by which it is done. The inquiry we have here suggested might thus have a philological value much higher, certainly much more interesting, than might be anticipated from the somewhat unpromising nature of the subject which it presents at first sight. In this direction we have space only to allude in a very general way to the tendency amongst those engaged in constructive work in Scotland—and, although in a less marked degree, also observable in the north of England—to use terms or phrases indicating certain classes of work or objects very short or brief as compared with those used in the southern parts of the kingdom. This is carried in some instances to its ultimate point, where a single word is used to denote a part which it takes several words to indicate in the series of technical trade terms in use in the south of England. This tendency receives an illustration when we compare the technical trade terms used in France with those used in the south of England for the same class of work. Here we find that generally the English terms are as noted for their brevity or condensation compared with the French, as are the Scottish compared with the English or the southern parts of the kingdom. In following up this direction of investigation into what may be called the philology of technical trade terms, some exceedingly interesting and in many respects practically suggestive points are opened up and elucidated more or less clearly.

Equivalents in French and English of the Terms, a Feature of the "Cyclopædic Dictionary."

In addition to the definitions or meanings of technical terms, and to the derivations where such are known, which will form the principal characteristics of our "Cyclopædic Dictionary of Technical and Industrial Terms," we propose to add another feature. This is, that in addition to the English terms their Continental equivalents or names, either in French or German, or in many cases in both languages, will be given. It is right, however, to draw the attention of the reader distinctly to the fact that this undertaking is only conditional. Our space is only very limited, or if in one sense not so, there are so many demands upon it, inasmuch as to be useful at all, the leading branches at least must be somewhat fully treated. Space, therefore, may not be at disposal to enable us to give in *all* the sections of the "Technical Dictionary" the French or German equivalents of the English terms given. Beginning, however, with the hope that by judicious arrangement space sufficient will be had in which to give those Continental equivalents, either in French or in German or in both, in all the sections; we are able at present to state that at the very least two sections, and those perhaps the most important, will be so treated. In connection with this feature of the work, it will for various reasons be obvious that, while in many instances we may give such terms as are purely conventional, that is, shop or trade or local names, in English—as used in this country alone—we do not purpose to give the conventional equivalents as used in France and Germany. Apart from the large additional space which this would demand, it may well be doubted whether the information given would repay the reader for the time it would take up to master it. Such conventional, or shop, trade or local terms in foreign languages would only be useful to one going to work in the respective countries, and would have no direct utility in the work of technical education as carried on here.

It is confidently expected that this feature of giving the French or German equivalents for or names of English technical terms will be found both interesting and useful. Interesting it is certain to be; and anything which imparts an added interest to a subject under consideration is always valuable, if in no other way than in giving the reader or student a desire to know more. And if information can be obtained with comparatively little trouble—flowing, as it were, naturally out of any subject in hand, as will be the case in the present instance—the reader is sure to be gratified. For to one having a thirst for knowledge it is

always a source of satisfaction to be made acquainted with something which he did not know before.

Direct and Special Business Value of the Continental Equivalents for English Technical and Trade Terms.

But these French and German equivalents for, or translations of, English terms given in our Dictionary have, in addition to this general interest, a special and a directly practical value. The intercourse which now takes place between the three peoples, English, French, and German—brought about by large and important commercial and trade interests—is very extended; and with ever increasing business relations, this intercourse is becoming all the closer and more intimate, the more extended it becomes. And as one of the many results of this, the interchange, as it may be called, of the three languages, both in their spoken and written or printed forms, has been carried out to an extent far beyond what one only looking at the surface of things would suppose to be at all the case. And this interchange is becoming wider and wider in its operation every day, embracing within its influence largely increasing numbers. And this is brought about not merely by what may be called the purely personal influences which trade or commerce creates and maintains, but by scholastic or educational influences. For there are now amongst us a very great number of students who can read with greater or less ease, but always so as to be able to understand, both French and German—of these two French having the superior claim. And this facility to read has opened up a wide perusal of books of all kinds printed in French, or in the crabbed and always—to all peoples but themselves—confusing characters or letters used throughout Germany.

There is one class of Continental literature possessed of the highest value to the readers, and bearing in the closest of ways upon the scheme and scope of the *TECHNICAL JOURNAL*. This is the class which includes all kinds of books connected with technical and industrial work. The extension of a systematic technical education amongst us will naturally lead to a wider knowledge of, and a closer practical acquaintance with, the contents of purely technical and scientific works published in France and Germany.

Value of the Continental Equivalents to the Reader of General Literature.

In connection with Continental technical literature our Dictionary equivalents in French or German, or in both, of English terms used,

will be useful, we have every reason to believe, in a marked and practical manner. For although the number of the technical works of the Continent is very great, and this is every year increasing; and although through the causes we have named operating every year more and more powerfully, the number of such works read or consulted in this country is much greater now than ever it was before—and is likely to be greater still as time goes on—the reader may, notwithstanding, be surprised to learn that, as a rule, technical and scientific words are not given and explained in ordinary French-and-English, or English-and-French, or in German-English or English-German dictionaries. True, there are technical dictionaries published; but those are few in number, chiefly published abroad, always bulky in size, and what is more to the point so far as technical students and readers are concerned, high in price; and in none are the features combined which make ours at once a dictionary of words or a vocabulary—a dictionary of derivations—or a cyclopædia of information—and a dictionary of foreign equivalents and their translation and derivation. Those difficulties now glanced at will, it is hoped, be effectively met by the “*Cyclopædic Technical Dictionary*,” with the features appended now being considered, so far as its scheme and scope extend.

Value of the Translation or giving the Meaning of French and German Equivalents for Technical Terms as given in the Dictionary.

But if we gave in the “*Cyclopædic Dictionary of Technical Terms*” the mere foreign equivalents of the English terms—that is, the words in French or in German—it is obvious that, however interesting it might be to the reader or student to know them, there would be but little practical value attached to the list; for they would form in reality but a mere vocabulary or word-list, and so far as the *meaning* of the words or the phrases given in French or German would be concerned, the reader—who for the present we presume to be ignorant of those languages, and it is but very few indeed in this country who know both of them, not many who know but one—would be, to use a graphic expression, left entirely in the dark.

By our plan of giving a *translation*, therefore, of the words in French or German which are equivalents for our corresponding English technical terms, we shall do more than merely give what will be interesting or valuable from a linguistic point of view; we shall be serving interests of a much wider practical value. For the reader not acquainted with the subject must not

here suppose, what at first sight he is apt to conclude would be the case, that the French or German equivalent for an English term would be simply a translation of that English term, converted or turned over, so to say, into the French or German. On the contrary, it will be found that it is only in rare cases that one word in French or German will be the simple equivalent or translation of a single English word, and that in the great majority of instances more than one word, and in not a few cases a great many words, will be required to give the exact equivalent for a technical term in English, which may be expressed in one word only. The cases are, indeed, comparatively but few in which two or more words are required in our language. This characteristic of many words being required to give the equivalent for an English technical term is much more a feature of the German than of the French language. And a very puzzling characteristic of a German technical term is the combination of perhaps very many words or terms having different meanings, which are, however, strung continuously together without any division, so as to form one long word, the meaning of which as one word only is the equivalent of the English term, which latter may be given as a single word only, or, as in but few cases, two or three words at the most. While a multiplicity of words is also to a great extent a feature of the French technical terms, there is this difference, taking the term as a whole—namely, that there is a division between the words, the different words making up a sentence. The reader will thus see that if we merely gave him the equivalents in French or German, we should frequently, in the case of French for example, give him a long series of words, of which we presume that he would not know the meaning, and in the case of German a long series of letters forming a word of to him interminable length, which would be more suggestive of grotesque ideas than of practical ones. By dividing this long array of letters into separate words we give a key to its meaning. We cite only one example: in the English technical term “bat” (which see), the French equivalent takes no fewer than seven words to express what to an English bricklayer is conveyed by the one word bat. In the German five words are required. If we simply gave those words, the reader no doubt would have the equivalent foreign technical term, but the words would, to one ignorant of the languages, convey no meaning. To give a translation of all the foreign words will not be interesting only, and useful as giving a knowledge, in a very easy because incidental way, of a vast number of foreign words, but a practical purpose would be served altogether marked and useful. And in many cases a great interest will

be thrown around a subject by its derivation or root being given; and in the majority of instances we purpose *giving the derivations of foreign technical terms in their own language*. It is unnecessary to follow out examples showing the practical utility of information such as that we have now explained: a little consideration will bring up many to the minds of those engaged in any technical business.

A Method of giving the Pronunciation of French and English Words as closely as can be attained by the Use of English Words and Letters as a Feature of the Dictionary.

In glancing at the title of the Cyclopædic Dictionary the reader will have observed that one of its features is that the *Pronunciation* of the Continental words or equivalents of English technical terms is proposed to be given, and this upon a plan somewhat novel. And from various trials of it, extending through several years, we have some reason to believe that it will be effective and readily understood and applied as it is novel. It forms no part of the present paper to take up, even in the most sketchy of methods, the general subject of the study of the French and German languages. But, as we have reason to believe that a fairly and generally accurate pronunciation of the words in those languages which we give as equivalents for corresponding English technical terms will be desired by the great majority of our readers, who as yet have no acquaintance with the subject, we feel that it is our duty to offer a few remarks on pronunciation of French and German words, which will help to make clear the method or system we have adopted, and which will further be interesting to themselves.

In this connection it will be well to state that we purpose to give, on a plan the same in principle as the one above alluded to, the pronunciation of difficult English words. From what we have said the reader will understand how it is that many of the scientific and technical terms, derived as they are from Greek or Latin, some from Continental and some from Old English or Saxon words, present to the eye an appearance of novelty, more or less removed from that of ordinary English words, and lending themselves by no means easily to the ordinary modes of English pronunciation. Even those otherwise or generally well educated are not seldom at a loss how to pronounce certain scientific or technical terms, the practical result being that one often hears them pronounced in different ways, and a difficulty arises in deciding which of those is the correct one. Numerous

examples of this could be given here; we content ourselves by citing only such words as *gypsum*, *gneiss*, *chalybeate*, *campanile*, *abat-toir*, and *acetate*. In all cases where we conceive that a term comes under this class of obscure or debatable pronunciation, we shall endeavour to give the correct one by the plan we have above alluded to in connection with the French and German terms.

It is scarcely necessary to say that it is by no means a new thing to give in dictionaries and other works treating on the French and German languages methods of conveying to the reader or learner an idea of how the words are pronounced. All these methods, and also of course of necessity the method we have ourselves adopted in the Dictionary of the TECHNICAL JOURNAL, labour under the great disadvantage of appealing only to the mind of the student through the medium of the eye. Now, it is known to every schoolboy that the greatest help in acquiring a knowledge of pronunciation of a language is obtained through the medium of the ear. A child speaks long before he can read, and even when he can read the accuracy of his pronunciation depends upon his ear. Of course, this also upon his teachers, or the influence of those—educated or otherwise—with whom he is daily in contact. And the difficulties, admittedly great as they are in acquiring a correct pronunciation in English, are assuredly much greater in connection with the Continental languages.

The Peculiarities and Linguistic Characteristics of the French Language.

Of the two with which our "Cyclopædic Technical Dictionary" concerns itself—French and German—the French is that which presents by far the greatest difficulty as regards its pronunciation. In German every or nearly every letter is sounded; but in French many are not so, being altogether dropped out. And for this there appears to be no rule, it being decided apparently altogether conventionally. Hence the varieties in the mode of pronunciation, such as those prevalent in the provinces; and even in Paris, which gives the tone to everything in France, the pronunciation of some words is not yet quite a settled matter. The only guide to an Englishman in this matter is the ear, of which it may be said that he who has a good ear for music is much more likely to learn French pronunciation quickly than he who does not possess it. But, as before said, all written or practical attempts to convey pronunciation labour under the very great disadvantage of not having the ear to appeal to, only the eye. Nevertheless it is, we believe, a matter of com-

parative ease to convey by means of printed instructions a fairly accurate conception of the leading features of French, and also of German pronunciation. This must, however, be taken with the proviso that it is only a fairly accurate conception or approximative pronunciation which can be thus obtained, and that only in certain directions. But this much may be promised—that by attention to what is about to be stated very gross blunders in the pronunciation may be avoided; and this although in one sense only a negative, is practically a positive advantage of considerable value.

Let us, then, take up the subject of pronunciation in such of its leading features as are capable of being to a certain extent usefully explained by directions which are to be seen or read; there being others to which this mode of explanation is not at all applicable, *vivâ-voce* and ear or oral instruction being *absolutely necessary*. We have said that one peculiarity of French words is that in few cases do the letters composing them give a clue to their pronunciation: certain letters are not only dropped out—that is, not pronounced at all—but they for the most part have sounds very difficult for the English ear to take up and give. And so finely adjusted, so to say, is this, that in some cases there is but the nicest shade of difference between the pronunciation of two words, which mean nevertheless two quite different things. And this shade can only be accurately distinguished and learned by the ear, and generally only by long practice. A very noted example of this is in the words signifying "one," as one thing or a thing,—which are *un*, this being the masculine form of the French word; *une*, this being the feminine for it. It is not possible to give a set of English letters which will convey what the attentive discriminating ear knows to be the very nice or fine distinction between the word "one" (which in English is used for all genders) in its two forms of *un* and *une*. The nearest approach to the masculine form *un* is in the English word "earn" not sounding the "r." In the feminine form *une*, the nearest approach is *uehn* or *uh-n*; the final *n* in both cases being, as it were, breathed out rather than actually spoken.

What is called the nasal sound—popularly known as "speaking through the nose"—is, however, possibly the greatest difficulty in the pronunciation of French words. It is met with in such parts of French words as "on," as in the word *Monsieur*; "en," as in the word *encore*; or "ent," as in *present*, etc. As regards the sounds of those and similar combinations of letters in the French language, we may say that, as a rule with few exceptions, the popular notion held in this country is that they are best represented by the letter *g*—as *ang*, *eng*, *angt*,

this letter being sounded as hard and almost as harshly as possible. Now, this does not obtain in French, the hard *g*, as in our word "twang," being replaced by a nasal sound, which would make this word sound to English ears as if it was like "twah," or rather "twagh," the nasal sound coming in at the final letters *ah* or *gh*; the letters *ng*, as we pronounce them, disappearing, so to say, almost entirely. We say to an English ear "like" this, but not precisely. Difficult as it is, practically impossible indeed, to find a combination of letters to convey the absolute sound, the following description may give the reader a fairly accurate notion of it. We take the word *Monsieur* (the equivalent for our "Mr." or "Sir") as a good and a well-known representative. The popular notion as regards this is that in its pronunciation the letter *g*, sounding as very hard, is the principal feature—this appearing in the first syllable "mon," as if it were *mong*, *g* very hard and pronounced. Taking the last syllable also, the whole word will afford two lessons of great value in pronunciation of French words. The nearest approach to the true pronunciation of the word *monsieur* which one can hope for at the first may be thus obtained. In the first syllable, "mon-", drop the *n* altogether and say "mo," or "moh," giving by means of the nasal sound only a slight suspicion of the letter *g*. This being done, by passing it through the nose in place of pronouncing it, as we English pronounce the letter *g*, by passing it between the tongue and the palate. The last syllable, "sieur," is pronounced by contracting the lips precisely as if about to whistle, and blowing out, as it were, the syllable as if it were spelled in English "see you," or "see-euh," *s* passing out from between the lips with a slight hissing sound. A very accurate pronunciation on the whole of the word *Monsieur*, as one hears it pronounced in France, may be obtained by taking the word as represented by the combination we have named—*moo-see-you* or *moh-syue*—and not attempting to give the nasal sound to *mo* or *moh*, pronouncing it simply as *mo*, and finally whistling or audibly breathing out the letters *syue* or *see-you* through the space between the tip of the tongue and the teeth and lips. This lesson will be found applicable to other words.

This hard and harsh sounding of the letter *g*, which may be said to be the feature of the popular English pronunciation of the syllables of French words in which such combinations of sounds as "ang," "eng," "ong," etc., are supposed to be, should be carefully avoided. Thus in the word *encore* (Eng. "again"—that is, in the sense of a thing being repeated) it should not be as if the first syllable were to be pronounced "ang" with the *g* hard—but somewhat like "ah" or "agh"—with only a suspicion of the

nasal sound of the *g*. A fairly accurate sounding of the syllable will be obtained if the English word *ah* be used, taking care to prolong it, dwelling upon the *ah* for a brief space—before the last syllable-core (Eng. *korr* or *kore*) is taken up. In the French word *combien*, which signifies "how much"—as in asking what a thing costs in purchasing or pricing it—the same rule or principle of pronunciation is to be attended to as above named. So that it is not as if pronounced "com" or "kom-bee-ang" with *g* hard—but rather as "com-bee-ah" or "agh"—*g* with a suspicion of the nasal sound. In all cases, then, in the pronunciation of the French synonyms for English technical or scientific terms given in our Dictionary in which such combinations as "eng," "ang," or "ong" are met with, the reader will be pleased to remember what we have now said as to it. While the usual or conventional modes of representing this nasal sound, which is the characteristic of such terminations, is by a combination of the letters *ng*—as in "ang"—with the *g* hard—we prefer to represent it by the combination "agh"—which is pronounced very much like the English word "ah"—but with a nasal suspicion or shade of the *g*.

The hissing sound of the letter *s*, referred to in last paragraph in connection with the word *monsieur*, is also to be noticed in relation to words in which the combination of letters "ti" are met with, as in the word *combination*. This word means precisely the same thing as the English word. With us the "at" assumes this form, pronouncing the word as if written or spelled thus—*com-bee-nay-shun*, the *sh* being sounded as in the word "harsh." The French word is pronounced as if written or spelled thus—*com-bee-nah-see-ong* or *-syong*. Again pointing out our warning as to the final syllable "ong," we refer now pointedly to the syllable "see," which represents the letters "ti" in the French word, and in which letter, as "see," the letter *s* must have the slightly hissing sound, as named in relation to the *s* in *monsieur* in last paragraph but one.

The Sounds of Individual Letters, and the Way in which they are Accented a Very Important Element in the French Language, both as regards Pronunciation and Meaning of Words.

The sounds of individual letters, or the way in which they are pronounced, and the way in which they are accented, are important elements in the pronunciation of, as also in changing the meaning of, French words. With the last point we do not here concern ourselves, as that will be exemplified in the Dictionary, and it also

refers to the general study of French,—we confine ourselves only to pronunciation. The letter **a** is never pronounced in French like the letter in our words *fate*, *mate*, but always broad, as in our words *jar*, *far*, *tar*. The letter **c** before the vowels **a**, **o** and **u** is, as usually with us, sounded hard—as in the French word *franc* (the coin equivalent to 10d. of our money), which is pronounced as if *frank*. Here again, however, it is to be noted that in France, although the **c** has the hard sound, that hardness is very much softened down in conversation; so that one rarely hears the hard sound as above given, but rather an approach to the nasal sound already referred to, so that the words we have given would be in pronunciation more like *frang*, terminated with a softened sound of the letter **k**. When the letter **c** has the mark under it known to us as the “cedilla”—in the French as the *cédille*—as thus **g**—which is when the letter **c** precedes the vowels **a**, **o**, and **u**,—the **c** is no longer sounded hard, but soft, as in the two letters **ss**, as in the English word “mass.” Thus the French word *façade*, having the cedilla below the **c**, the pronunciation is as represented by the “nonsense” or made words—*fass-sawd* or *sahd*. The **c** is sounded soft before the vowels **e**, **i**, and **y**. It is usually sounded when it ends a word, as *avec* (with)—pron. *ah-vekk*. But there are certain exceptions to this, as in the words *accroc* (rent)—pron. *ah-kroh* or *ah-krow*. The letter **c** has the sound of our **g** in in some few words, as in *seconde*, second—pron. *seh-gond*, with the slight nasal sound on the letter **n**.

The letter **é** with the accent is never pronounced in French as it is with us in our words *meet*, *feet*, or *greet*, but always as **a** in the words *fate*, *gate*, or *state*. In other words, the letter **e** in French, considered alphabetically, is sounded like **a**, as it stands in our alphabet. But just as our **a** has this alphabetical or normal sound changed in the words *fat*, *mat*, or *spat*, so the alphabetical or normal sound of the French **e** is changed according to the accent placed over it. When the acute accent or ‘ is placed over the **e**, as thus, **é**, it denotes that the letter is to be pronounced like our normal **a**. Thus the French word *bonté*, goodness, is pronounced as *bong* or *boghtay*. If the letter **e** has the accent known as the circumflex, as **ê**, thus **ê**, it alters its alphabetical sound: thus the French word *fête*, a feast or public holiday, is pronounced as *feh*, not as *fate*. Generally it gives the **e** a long open sound. The letter **e** in French has three varieties of sounds. First the “mute” (as in *Fr. muet*, pron. *mueh-aye*), where it is dropped, as in the word *cela* (that—pron. like *slah*, not like *say-lah*, as might be supposed). Second, the “closed” (*Fr. fermé*—pron. *ferr-may*) or acute: this we have already illustrated. And third,

the **e** “open” (*Fr. ouvert*—pron. *oo-vare*), or the grave accent, as in *modèle*—pron. *modelh*.

The letter **f** is pronounced singly or alphabetically as if preceded by our English **a**, or sounding like *afe*. As a rule **f** is sounded at the end of French words—with a few exceptions. But it is dropped in some few others, as in *clef* (a key), pron. *klay*, or *clay*; in *chef* (master, chief, or head), pron. *shay* or *sheh* in combination, as in *chef-d'œuvre* (a masterpiece, or the best of one's work)—pron. *shay-deuhv-er*, but alone as *sheff* (see a succeeding paragraph on combination of letters, as *ai*, *ou*, *ch*, *gn*, *re*, etc.).

The letter **g** in French, pronounced singly or alphabetically, as *gé*—that is, *jay*—is sounded hard before the vowels **a**, **o** and **u**, as in *gaité* (mirth)—pron. *gay-tay*, *aiguise* (to sharpen, whet, or put an edge upon)—pron. *ay-gweeze-eh*. The letter **g** is soft before the vowels **e**, **i**, and **y**, as in *gibet* (a gimlet)—pron. *jeeb-lay*, or as in *génie* (an engineer, as *génie civile*, civil engineer)—pron. *jaynee seeveel*; or as in *gypseux* (gypsum, or plaster of Paris)—pron. *jeep-suh* or *-sugh*. (See the word *une* in a preceding paragraph for the pronunciation of the letter **u** in this and other words.) The letter **g** has sometimes a sound like the letters **sh**, or rather **shz**, as in *auberge* (a small inn)—pron. *oh-bairj*. (For the peculiar sound of such letters as **tr** in the above *angtr* see a succeeding paragraph). When at the end of certain words **g** is dropped or is mute, as in the above words *long* and *sang*, which are read as *loh* and *sah*—or rather *logh* and *sagh*, with a slight nasal sound at the **g**.

The letter **h** is in certain words altogether mute or not sounded, as in *hôte* (guest), which is pronounced as *oh*, or as a Cockney says *ole* for *hole*. Thus the well-known words *table d'hôte* (“table of the guest,” literally), are pronounced *tah-ble-dot*, or *tah-bell dot*—or as in *l'honneur*, pron. *lonn-euhr* (see letter **u**). In many words the letter **h** is sounded full or aspirated, as in *hache* (ax)—pron. *bahsh*; *hangar* (stable or shed)—pron. *han-garr* with a slight nasal sound at the **r**.

The letter **i** is always alphabetically pronounced like our **e**, as in the words *meet*, *feet*, or *greet*, never like our way of pronouncing the letter, as if it were *eye*. Thus the word *kilomètre* (a French measure of length) is pronounced not as *if* the first syllable were like *kye* or *ki*, but as *kee*: thus *kee-lo-meter*. The **i** has a distinct sound of our letter **y** in the words in which *oign* is met with: thus *poignée* (handle) is pronounced as *po-ahg-naye*, the **gh** having the nasal sound of *ang* or *agh*.

The letter **l**, which as a single member of the alphabet is always pronounced the same as our **l**, is always sounded at the ends of words

with sundry exceptions—as *outil* (a tool)—pron. ooh-til (l slightly pronounced), *baril* (barrel), barr-il. The combination *ll* has, as a rule, a peculiar sound, which is called a liquid sound, and which constitutes one of the greatest difficulties in French pronunciation to an Englishman: of this more presently. The double *l* at the beginning of all words is an exception to this liquid sound, as also certain words, as *ville* (town)—pron. veel or veal, and the *ll* is pronounced full. Thus the word *illustre* (illustrious) is pron. eel-uhs-ter, the *re* having the sound of *er*. *Illuminer* (to illuminate) is pronounced eel-uhm-ee-nay; *allonger* (to lengthen) is pronounced al-long-jay. The liquid sound of the *ll* above referred to is a difficult matter for an Englishman to give. An approximation to the peculiar sound may be obtained by the following. The word *Versailles*—the palace of which town is one of the greatest attractions of visitors to Paris—pronounced as thus will give this: Vairs-eyl. This, indeed, is the nearest approach which any combination of nonsense-words in English will give. Again, the liquid sound of the *ll* in French words generally will be met with in the word *meilleur* (better)—pron. mell-yuh, the *meill* being pronounced as the first syllable of the English word mel-ting. The word *bouillant* (boiling) gives also the liquid sound—pron. as boo (or booh)-ee-angt (or -aght), *g* or *gh* nasally, *famille* (family), fah-mee-yuh.

The letter *o*, single or alphabetically, is sounded not so much like our *o* as in the word *on*, but more openly, as if marked with the *^* accent, *ô*, very nearly as we have it in the word *nut*, or a sound *between* the *u* in this word and the *o* in our word *note*.

The letter *p*, as a single letter, or alphabetically, is pronounced in French as in the English word *pay*, not *pea*, as with us. At the end of certain words it is dropped or not sounded, as in *drop* (cloth)—pron. drah, or as in *coup* (a blow or stroke)—pron. kooch. It is sounded as in the word *cap* (cape)—pron. kapp; and also always in the middle of words, as in *drapeur* (flag or colours)—pron. drah-peuhr.

The letter *q* is sounded as if it were a *k*. Thus *quel* (what) is pron. kell; *quelque chose* (something) is pronounced very much as if it were *kelk-shoze*, or nearer in *keck-shoze*. *Quitter* (to quit), pron. kee-tay.

The letter *r* is pronounced not in our way, as in the English word *are*, or as in *ahr*, but as if marked with the grave accent, *˘r*, and pronounced somewhat as in the English word *air*. One peculiarity in French pronunciation is connected with this letter *r*. We have seen that in many words letters are either dropped out or mute, while others are softened down, so to say, till they become merely breathed out in place of being fully, clearly, and boldly

sounded. If one listens attentively to French conversation he will hear numerous illustrations of this; but the most marked to an English ear is the softening of the nasal sound, met with in such combinations as *en*, *am*, simply because, as we have shown, the English popular plea is that an equivalent in which the *ng* is so used must be pronounced as hardly and harshly as we give it in the word *bang*,—which a Frenchman would pronounce softly as *bah*, or *bagh-n*, terminating with the nasal sound. But to these soft and suppressed sounds this letter *r* is a decided exception, as any one attentively listening to the conversation of French people will soon discover. While in England the letter is softened and softened till it almost disappears, or its place is taken by another letter, as a *w*, in France—as in Scotland also, by the way, or in Ireland—the *r* is rung out with a force and fervour remarkable, and often dwelt upon, as if the sound were particularly pleasing to the French ear. Thus, if the last part of the word *Versailles* is given softly, the first part, *Ver-*, is rung strongly out. So also in *royale*—pron. R (r-r-r) rwah-yahl. There are here, as in other cases, exceptions to this: thus, in *garçon* (boy, waiter) the *r* is so softened that it is pronounced more like *gah-song* than *garr-song*, although the latter is often heard with the *r* rung out boldly.

The letter *s*, as a single member of the French alphabet, is sounded not so much as in our English termination in *ess*, but rather as in the word *ace*. But it has in French frequently the sound of our *z*, as in words where it comes between two vowels—as in the word *présent*, which has the same meaning as in our language—this is pronounced as *pray-zang*, or with the *ng* nasally, as *zagh*, or *zah*. This sound is also seen in the word *misère* (misery or wretchedness)—pron. as mee-zare. The letter *s* is one of those which is very frequently not sounded at the end of words, or dropped. Words of this kind are very numerous, as for example, *nous* (we) is pronounced singly as *noo* (as in our word *noon*), *trois*—pron. as trwah or trooah. But when such words terminating with *s* precede other words beginning with a vowel or a silent *h*, then the *s* is sounded, but, as stated above, with the sound of our letter *z*. Thus the words *nous avons* (we have) would, if pronounced *noo avongs*, be inharmonious or displeasing; but the pronunciation is made euphonious by sounding the *s* (as *z*), thus we have now the right pronunciation, *nooze-avonze*. Again, in the conjunction *trois-heures* (three hours), the pron. traa-h-urhrs, or -oohrs, would not be pleasing to the ear, but by sounding the *s* at the end of *trois* (as *z*) we have the euphonised pronunciation trwahz-euhr.

The letter *t* as a single member of the French alphabet, has a sound as if accented, thus *t*, as in our word *Tay*—not as in *tee* or *tea*. It is generally silent, but as terminating certain words it is sounded, as in *brut* (rough or rude), thus *broot*, or *brucht*; or as in *correct* (right or accurate), *korraickt*; or *est* (the east), *esst*; or as in *ouest* (west), pron. as dissyllabic *oo-esst*. We have now to point out an office which the letter *t* has to fulfil in the pronunciation of French words when in conjunction under certain circumstances, and which gives one of the most striking peculiarities of the language. Our readers will frequently have observed in written or printed French the intervention of this letter, *t*, between certain vowels—such, for example, as *a-t-il*? This is done for the sake of euphony, or to avoid the awkwardness of two vowels coming together. Thus *a il* (meaning, has he?), pronounced alone, as thus, *ah-eel*, would sound odd—as if something were lacking—but by interposing the letter *t*, with a hyphen at each side of it, and sounding it, we have in the new pronunciation—*ah-teel*—one much more euphonic. Thus in *donne il* (meaning, does he give?) the pronunciation alone, as *dunn-eel* or *donn-eel*, a sound between the *o* and the *u*, would sound awkwardly, but by interposing the *t*—as thus *donne-t-il*?—and sounding it, we have in *dunn teel* a much more pleasing pronunciation. But the *t* has also another important use, in being sounded at the end of words which precede other words beginning with a vowel, and which final *t* would not, under other circumstances, be sounded at all. Thus the word *peut* (can), while standing singly, would be pronounced as *peuh*, or *poo*, preceding another beginning with a vowel, as the word *un* (one, as such an one), would give an awkward sound, as thus, *puh-ong*, but by sounding the letter *t* at end of *peut* we have in *puh-tang*, or rather *puh-tah* (see preceding paragraph on the words *un* and *une*), a much more euphonic pronunciation. *Fait* (makes), pronounced *fay*, and preceding a word beginning with a vowel, as say *une* (one), pronounced as *fay-on*, would be awkward, but by sounding the *t* at end of *fait* we have in *fay-toon* a more euphonic pronunciation.

The sound of the letter *u* has been incidentally described and illustrated in more than one of the preceding paragraphs. It is one of the sounds difficult for an English ear to catch readily and accurately. This occurs more especially in the case of combinations with other letters. The changes it assumes are sometimes very nice. We have in the case of the masculine and feminine forms (there is no neuter in the French language, as in ours) of the word one, *un* and *une*, illustrated this. As a single letter it has the sound of the made or nonsense word *kuube*

or *koobe*, the sound being as between the *o* and the *u*. It also has the sound of *u* in our word *supper*—as in the French word *beurre*, butter, which is pronounced very much like *burr*, or almost like *bueh*, the *r* being slightly sounded. It has also the sound of the *u* in our words *fool*, *school*, or *bull*, as in the French word *boulevard*—*bool-eh-var*d.

There is no *w* in French: in all English words in which this appears, as at the beginning of a word, as *William*, *Wellington*, it is replaced by Frenchmen with a *v*, and this as a letter is pronounced by them as in our word *convey* (*vay*). The letter *x* has various sounds. In some, as in the well-known name *Bruxelles*—the capital of Belgium—the *x* is sounded thus: *Brubcks-ell* (as in rocks). *X* is thus sounded in some words precisely as we give it in such words as *reflexion* (*réflexion*)—pron. *ray-flex-ee-ong*; Engl. pron. *ree-fleck-shun*. *X* in other French words is sounded precisely like our *z*: *sixième* (sixteenth), *seize-ee-aim*. Again, *x* in other words is sounded like *egs*, or *egz*, as in our English word *examine*. Thus the pronunciation of the French word *examen* (examination) is *eggz-ahm-enn*; *exercice* (the same meaning as with us), *eggs* (or rather *aiggs*)-*air-seece*.

The letter *z* as a single member of the French alphabet is sounded as in the English combination *zay*. It is generally not sounded or is dropped at the ends of words, as in *arrivez*, *donnez* pron. *arr-eev-eh*, *don-nay*. But if a word ending in *z* precedes another beginning with a vowel, as *un* (one), the *z* is sounded; thus *donnez-un* is not *don-nay-uhn*, but *don-naye-zuhn*, or *-zoon*.

The combinations of two letters in French give rise to many difficult and puzzling problems in pronunciation. We can find space only to give a few examples. Thus the *ui*, as in the word *celui* (that), is pronounced as *sell-we*; the word *tuile* (tile) as *tweel*. *Ou* is like our *oo* in root, which is the exact pronunciation of the French word *route* (a way or direction for travelling in—vulgarly with us pronounced as if it were *rowt*). *Au* has the sound of *o*; thus *chaud* (warm) is pronounced like *sho* or *show*, the *d* being silent; *auprès* (near), pron. *oh-pray*. The *oi* is like the letters *wah*; thus *voit* (sees) is pron. as *vwah*, the *t* being silent, but sounded if before a vowel; thus, *voit-il* (he sees) is pron. *vwah-teel*. The *eu*, as in *heure* (hour), is a very difficult sound to give an equivalent of in an English combination of letters or a nonsense-word; its sound is somewhat between the sound of the word *true*, and *troo* or *trugh*, the *eu* in the latter pronounced as the *u* in our word *lurk* or *turk* or *turf*. In the combination of the vowels *ai* the sound is as a in the English word *fate* or *mate*. Thus the word *connais* (know) is pron. like *con-nay*. The

ci has the same sound; thus *treize* (thirteen) is pronounced like *traize* or *trayz*. All the above are vowel combinations. The combinations of consonants, or vowels with consonants, give also differing sounds. The **ch** has in some words a hard, and in others a soft sound. Thus in such words as *chaud* (warm), *méchant* (wicked), the sound of the **ch** is precisely as we have it in the nonsense or fancy words *shose*, *shant*—*chaud* pron. sho, *méchant*, may-shangt; the French word *chose* (thing) is pron. shoze; as in *artichaud* (artichoke), pron. ahr- or arr-tee-show. The hard sound of the **ch** is found in such words as *écho*—pron. aye-koh, *chaos* (chaos or confusion)—pron. kah or kagh-oss (the sound broad as in our words *far*, *tar*), *orchestre* (orchestra), *orkester*. The combination of consonants **gn** has two sounds. First, hard, as in such words as *stagnante* (stagnant or still), pron. stahg-nahngt. The liquid or soft sound of **gn**, as in such words as *champagne*, is a somewhat difficult one to pronounce or find letter combinations to illustrate: *shagh*- or *shang-pah-yagh* or *-yagn*, or *sham-paiyn*; *champignon* (mushroom), pron. shang-peen-yong. The combination **gu** gives always the hard sound to the **g**, as *guider* (to guide)—pron. gee-day; in those the **u** is silent or vanishes. But in some words the **u** is sounded or appears while the **g** is still hard. Thus *aiguille* (a needle) is pron. ay-gue-el; it is often pronounced, however, without the **u** being present, as thus—ah-gwee-aye; as in the word *aiguier* (to sharpen or whet a tool)—pron. ay-gwee-aye. The combination **ph** in French, as with us, is pronounced like **f**, as in philosopher, the French equivalent for which is *philosophe*, pron. feel-ohz-off, or feel-oh-zoff. The combination **qua** is sounded something like kwah, as in *équation* (equation), pron. aye-kwah-see-ongh. The combination **que** is sounded somewhat like qweh, or rather qway—the **a** as in our word *mate*; thus *équestre* (an equestrian) is pron. aye-qwes-ter. The combination **qui** is sounded like qwee, as in *équitation* (horsemanship)—pron. aye-qwee-tah-see-ongh. The combination **th** is sounded like the simple letter **t**; the peculiar sound we give it, as in the words *that* or *those*, the Frenchman can rarely if ever give; he says *dat*, *dose*, or *tat*, *ose*. Thus the French word *thème* (a theme or subject) is pron. tame. We have referred to the importance of the accents in French pronunciation. When two dots are placed over a letter thus—*ï*—it means that that letter has to be pronounced as if it formed a distinct and separate syllable, with its own peculiar sound, in this case as **e**.

There is one combination generally at the ends of French words which gives much trouble in pronunciation. This is met with in such combinations as **tre**, **bre**—as in *mètre* (a measure

equivalent to one yard and a third and a fraction), *arbre* (a tree), *être* (to be). Take the word *mètre*: the pronunciation of this may be very closely approximated to by first saying *mayt*, or *mate*, and then adding to this the letters *er*, not *tess* or *tz*. The combinations will thus be pretty near the pronunciation of the word *mètre*. The word *être* is pronounced very much in the same way, taking the combination *ayt*, or *eight*, as the first sound, and finishing, as above, with the *er*—thus, *ait-er*. The **bre** in the word *arbre* is given by pronouncing softly the nonsense word *buh*—thus *ahr-buh*.

The Peculiarities and Linguistic Characteristics of the German Language.

We now come to the *German* pronunciation. As we have already stated, this is much easier in a general way than that of French, as all the letters are sounded, and thus those “elisions” or droppings-out of letters, etc., so puzzling in the French, are avoided (“elision” from a Latin word *eliso*, and this from *elidere*, to dash out or dash against). So also such difficult sounds as in the last paragraph we have had illustrations of, or as in words in preceding paragraphs, as *Monsieur*, etc. In German pronunciation the crucial difficulty or test is the sounding of the letters *ach*, *och*, or *ich*. The sound is, however, only a difficulty to English ears; it presents none whatever to those of Scotchmen or Irishmen. In the word *loch* (a lake or inland piece of water) the Scotchman, and in the exclamation “Och!” the Irishman, hits off the German *och* to an exactitude. And the same guttural or throat sound (from the Latin word *guttur*, the throat) is met with in the *ich* and the *ach* of German words. An Englishman pronounces the word *loch* as if spelled *lock*, or *lohk*; and *och* as if *oc* or *ock*; and *ich* he would call *ick* (the *i* as in our word *lick*), and *ach* as if spelled *ac* or *ack* (the *a* as in our word *lack*). Let us try to convey some notion of how this guttural sound, so difficult to many, is produced. Let the reader who has the difficulty to deal with, in the first instance pronounce the letter *o*, taking care, in pronouncing it, that he does so by blowing it out, so to say, between his partially opened lips. If he does this sharply, so as to stop or cut it off quickly, he will find that he has got a very near approach to the German sound of the *och*. And if he, in blowing out this *o* with a sharp energetic blast cut or nipped off suddenly, will try—and no good work is ever done without trial—to make the blast or sound proceed from the region of his throat, not that of his mouth, the reader will get a remarkably near approach to the true sound, and will by practice be able to say the *och* in a

way which would creditably pass in Germany. We say by practice, for a difficulty which by many Englishmen is deemed insuperable cannot be overcome all at once. The *ich* may be sounded in like manner to the above, only that the letter *e* is blown sharply out, and nipped, so to say, suddenly off. The *ach* sound is uttered in similar fashion by using the sound of *a* in its broad form, as in the word *Mark*, or *Shaw*.

Sounds of the Individual Letters in the German Language.

In German, as in French, the letter *A a* is always pronounced in this broad way, as in the words last named, or as in *ah*, or rather *awe*. It is never pronounced as in our word *fate* or *mate*. The *a* is also sounded short, as in our word *castor*. For beginners and for general use the *a* may be always sounded the broad or long way, as in *far* or *awe*. This sound of sharp *a* as in *mate*, is in fact the sound of the German letter *E e*, while in turn our sound of *e*, as in the word *meet*, is in reality the sound of the German *I i*. We have thus the *A a* in German represented by our sound of the letter *a* as in *ave*, the *E e* by our sound of *a* as in *fate*, and the *I i* by our sound of *e* as in *meet*. The letter *e* has also a short sound, as in our word *left*, and the sound is also produced or prolonged, as in our word *terror*. The letter *E e* has often a sound given to it like the *e* in our word *jest*. This is shown in *der*—pronounced *derr*. The other pronunciation, and which is the most frequently adopted, and is most in consonance with the language, is the usual sound of the German *e*—that is, “*dare*.” The letter *I i* has its ordinary or long sound, but is sometimes short. The letter *O o* has usually a long sound as in our word *dote*; it has sometimes a sharp or short sound, as in our word *pot*. The *U u* has its long sound, as in our word *food*, its short sound as in our word *book*. To an English ear it is not easy to distinguish between those two sounds, so that the first may be taken by beginners as the one to be followed, in the short word “*do*.”

The reader, in looking over German printed matter, will frequently observe the letters *a*, *o*, and *u* with two dots over them—as *ä*, *ö*, and *ü*. Those dots indicate a variation in the sounds which forms a very important feature in German pronunciation. The letter thus marked *ä* has a closed or what may be called a twisted sound, something like *aih*, the two dots being equivalent to the letter *e* after a vowel—thus *ä* or *ae*, *ö* or *oe*. The marked *ö* has a sound like that in the words *girth*, *firth*—or perhaps our word *birch* gives the sound best. It has a corresponding sound in the French combination *eu*,

as in the word *peur* (fear). The *u* with two dots, *ü*, has a sound which is best illustrated by the sound corresponding in French in the word *ruse* cunning, deceit), pron. *ruubz*, or nearly as the *oo* in our word *woosing*, in which the *oo* and the *i* are, so to say, turned in or twisted into each other.

The letter *O o* in German is sounded like our *k*, as *Cabinett*—pron. *kab-ee-nett*. This hard sound is always given before the vowels *a*, *o* and *u*, and before the *au* and all consonants. If placed before the *e*, *i*, or *y* (in Ger. *y*) or before the *ä*, *ö*, or *ü*, with two dots, *c* has the sound of *tz*, as in *ceder* (cedar)—pron. *tzay* or *tzeh-dare*.

The letter *D d* has, at the end of words, often a sound given to it like *t*, as *Band*—pronounced *bant*.

The letter *G g* has generally the same hard sound as it has with *us*, as in the words *got*, given In the combination *ig* at the end of a word, as *ewig*, or in the middle of a word, as *Gütigkeit*, it has a soft sound, aspirated like that between the sound of our *g*, as in the word, general, and the letters *sch*. Or perhaps the sound will be best produced by pronouncing our word *gig* as *gye*.

The letter *H h* has the strong aspirated sound at the beginning of all words, as in our words *hat*, *have*, as in *haben* (to have)—pron. *hah-benn*. If placed between two vowels, as in *gehen* (to go), the *h* is not sounded, and the preceding vowel is long: *gehen* (to go) as *gay-en*. There is no English combination of letters, or a word, which will give this sound of *h* between two vowels nearer than this now given. In all cases other than the above the *h* is mute, not sounded, that is in the middle of words. If the *h* is preceded by a vowel, as in *Zahl* (a number)—pron. *tzahl*, it lengthens out the sound of the *a* in the word, exemplified in the difference between our words *Sal* and *Saul*.

The letter *J j* is always sounded like our *y*. Thus *Jude* (a Jew) is pronounced *yuh*-or *you-dey*; *Ja* (yes) pron. *yah*. The letter *N n*, if it precedes a *k*, as in the word *dank* (thanks), has a nasal sound as in the French: thus the word is pronounced *dang-k*. This nasal sound to *n* is always given if it precedes the letter *g*—as in *Gesang* (a song)—pron. *geh-sang*.

The letter *S s* has usually the sharp hissing sound it has in English, as exemplified in the word just used. If it precede a vowel it takes the force of our *z*, as *selbst* (self) is pronounced as *zelbst*.

The letter *V v* is always sounded like our *f*, the exceptions to this being in words derived from languages foreign to the German, in which it has its usual sound, as in our words *verb*, *ever*. Thus the German word *verwunden* (to wound) is pron. *ferr-voon-den*. The middle syllable of this word shows also how the letter

W w is sounded, this being always like our v. Thus *Werkmeister* (journeyman, literally a master of his work), is pron. vairkk-mys-teer, the my as in our word mine; *wissen* (to know) pron. viss-en. The letter Z z is somewhat like our ts or tz: thus *Zimmer* (chamber) is pronounced as tzim-merr; *Zahn* (a tooth) is pron. tzaan, or tzawn, or tzah-n; *Zaun* (a fence)—pron. tzown or tzonn.

We now come to the combinations of letters, such as the au, ei, ea, etc., etc. The sounds of these constitute some of the peculiarities of German pronunciation, and to many some of its great difficulties. These are, however, much more easily overcome to an English ear than the crucial test of the och, the ich, or the ach. Some of these sounds have been incidentally given in the above paragraphs. Thus the sound of the au is shown in the word *Zaun* in last paragraph, from which it will be observed that it is sounded precisely as in our words [mouse, or house, or cow. Thus *kaufen* (to buy) is pron. cow-fen; *Jungfrau* pron. yung (see letter j) -frow. The combination ei is sounded precisely like the sound of the English words nine, mine, thine. Thus *nein* (no) is pron. nine; *Freiheit* (exemption, liberty) pron. frey-hey-t or frei-height. By the way, this terminal "heit" is the only exception there is to the rule named in connection with the letter H h, that it is always silent in the middle of words: not so with this exceptional end-syllable. The eu is sounded very much like the letters oi in the English words toil, moist, joist. Thus *Freund* (friend) is pron. froi-nd. This also is very much the sound of the letter ä with two dots over it (see letter a). Thus *Käufer* (purchaser or buyer) is pron. like koy-fer. The aa and ee sound very like the corresponding letters accented thus, ä ê; when two vowels of the same kind, such as those given, come together, they are pronounced exactly like the single letter, but prolonged. The letters ie are sounded like the ee in our words seen, been; thus, *Karnies* (cornice) is pron. kahr- or kawr-nece.

In the combinations of consonants the sounding of the letters ch, when preceded by the vowels a, i, o, is the great difficulty to the English ear, as we have explained in the combinations ach, ich, and och. The letters ch are, however, often sounded as k. The letters ph, as with us, sound as f; qu sound like qwee, as in our word queen. The letters sch sound like the sh in our words shovel, shoot. Thus the German word *Schule* (school) is pron. as shooh-el, this letter sounded as in our word mate.

In concluding our remarks on the plan and scope of the "Cyclopædic Technical Diction-

ary," we may be permitted to express the hope that it will form not the least practically useful and educationally suggestive department of its pages. And although from the very circumstances of its publication comparatively incomplete—that is, not thoroughly exhaustive

it is only right, in the interests of our readers, to say that each of the sections of the "Cyclopædic Technical Dictionary" is distinguished by a comprehensiveness of terms and a fulness or completion of their definitions which give it a fair claim to be considered practically complete. So far as the terms are concerned, many—and those in daily use either in practical work or literature—are given which have no place whatever in some glossaries or dictionaries taking up special departments of technical knowledge, and which nevertheless have occupied a high position in the ranks of technical works. Our title states that only the "leading terms" will be given; but the body of the dictionary itself fulfils very much more than the title promises. And so far as the meanings or definitions of the terms themselves are concerned, we may with some justice claim for them a fulness of explanation not always or often met with in works of the kind. But there are other features which may be said to belong to the "Cyclopædic Technical Dictionary" specially, and almost if not altogether exclusively. Those are the derivations of the synonyms or equivalent terms in French and German, their translation into our own tongue, and further, frequently their derivatives in and from their own language.

In the title we state that the work gives the synonyms, or if not those, the equivalent terms in French or German, or in both languages; but those two words were used to indicate specially that we made a distinction between them—so that if we did not give an exact synonym, that is, the trade expression of an English term, we should give French or German words which would be "equivalent" to the term in our own language—that is, would give the foreign words which would convey to our readers what our terms were in the Continental languages. In the body of the Dissertation itself, we pointedly referred to the fact that it would serve no useful purpose to give throughout the Dictionary the purely trade terms used in France and Germany for certain parts, processes and work, and fully explained why this was so. There are, indeed, many technical terms used with us which have no exact synonyms in French or in German, and which are generally received and recorded by authorities. We have been desirous to give the reader as complete and as wide as possible a list of words and phrases in French and German which correspond to the English words descriptive of or used to indicate the materials used, the work done, or the processes carried out in technical and industrial work. Writers on

the subject have often been compelled, so to say, in explaining those terms, to take such words or combinations of words in French or German as will give in their estimation the clearest view in those languages of what our technical or trade term is or conveys. Hence it follows that to some of the foreign "equivalents" given by some writers exception may be, as it has been, made by others; and this because the equivalents in some cases are not either scholastic or colloquial words in actual use. It has, however, in such cases been enough to reply that if such words or phrases—or as in the German language compounded or combined words—give a clue or key to what the corresponding material, work or process is in French or German, as the case may be, all that is aimed at by the writers is practically secured. And in such cases the converse holds equally

good. For a French or German reader will, in glancing at the words or phrases in such cases, have at once the clue or key to the English technical or trade term explaining how the work is done or the process gone through. A very clear distinction should be made between what may be called the scholastic or classical, and the technical literature of a language; it would obviously be of little use to judge, for example, our own technical terms by the standard of classical or scholastic English. If the equivalents we give serve to convey to the reader the nature of the material, tool, work, or process as expressed in French or German words, whether simple or compound, the object we have had in view will have been gained. At the same time it should be stated that throughout the Dictionary a large number of definite synonyms will be found.





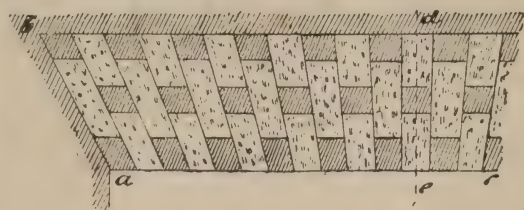


Fig. 1



Fig. 2

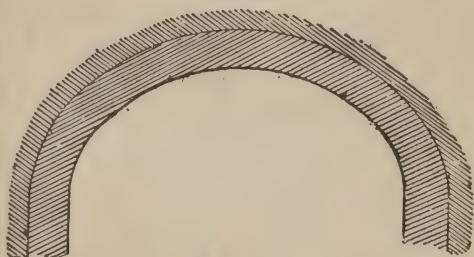


Fig. 3

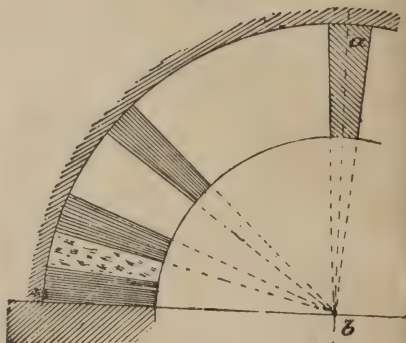


Fig. 5

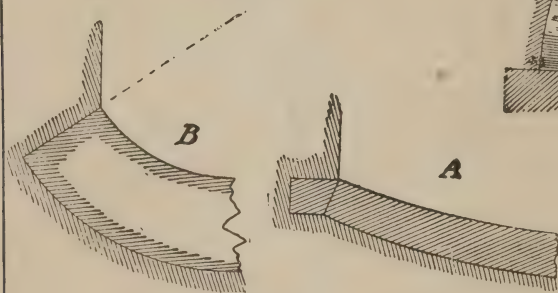


Fig. 4

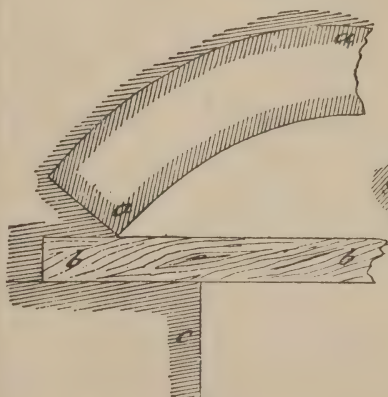


Fig. 6

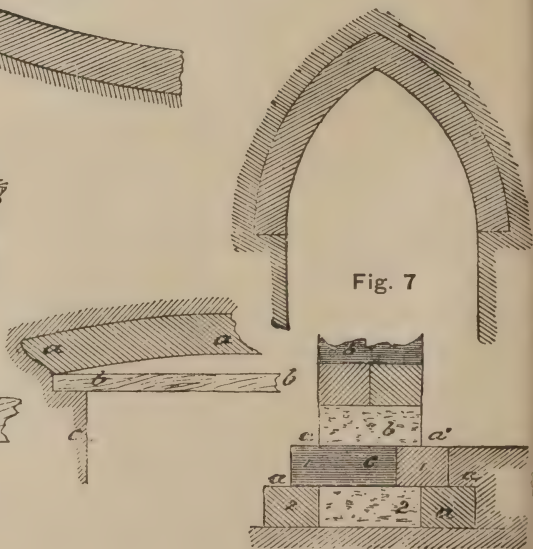


Fig. 7

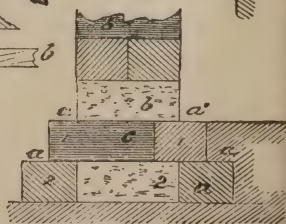


Fig. 8

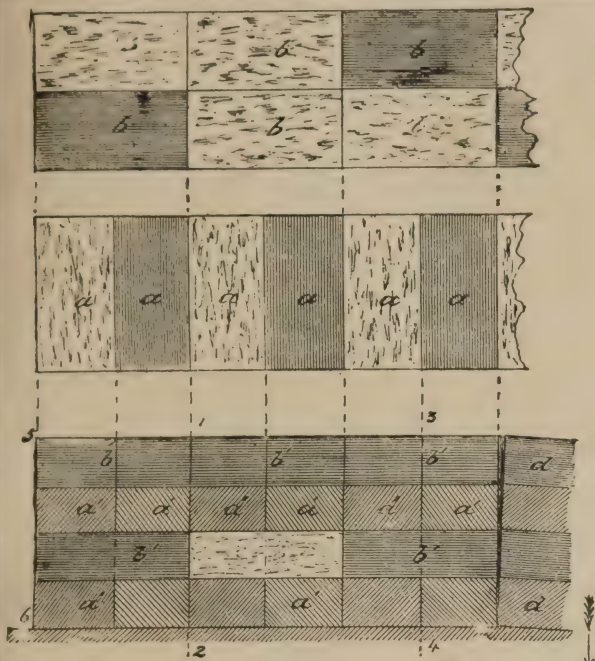


Fig. 1

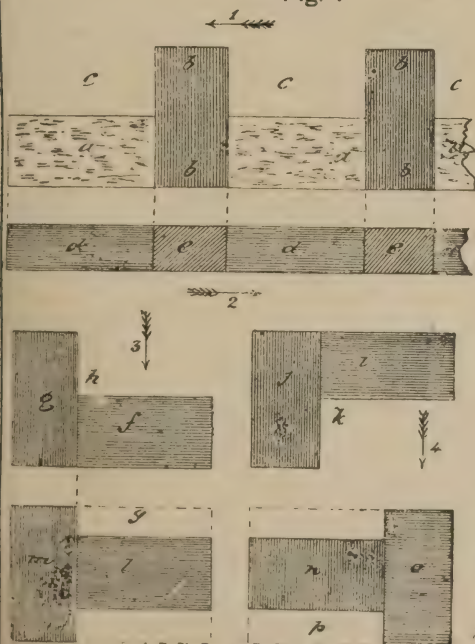


Fig. 2



Fig. 3

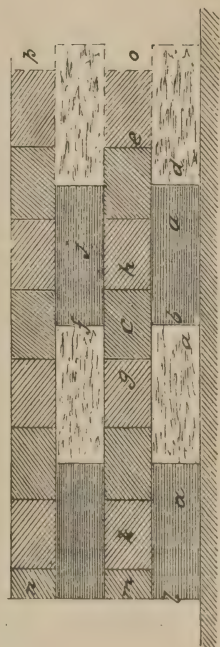


Fig. 4

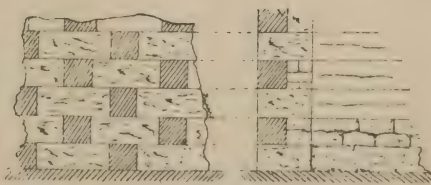


Fig. 5.

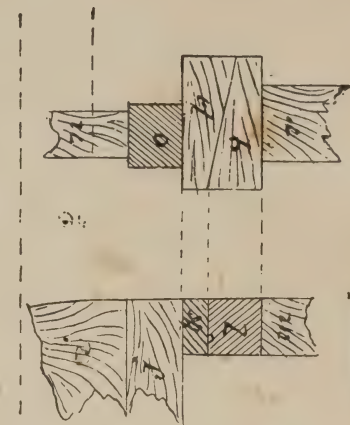
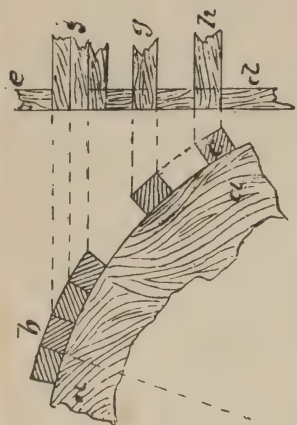


Fig. 1

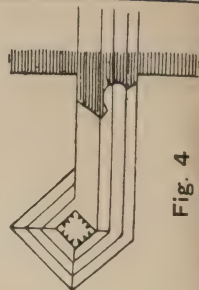


Fig. 4

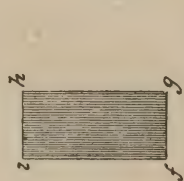


Fig. 5

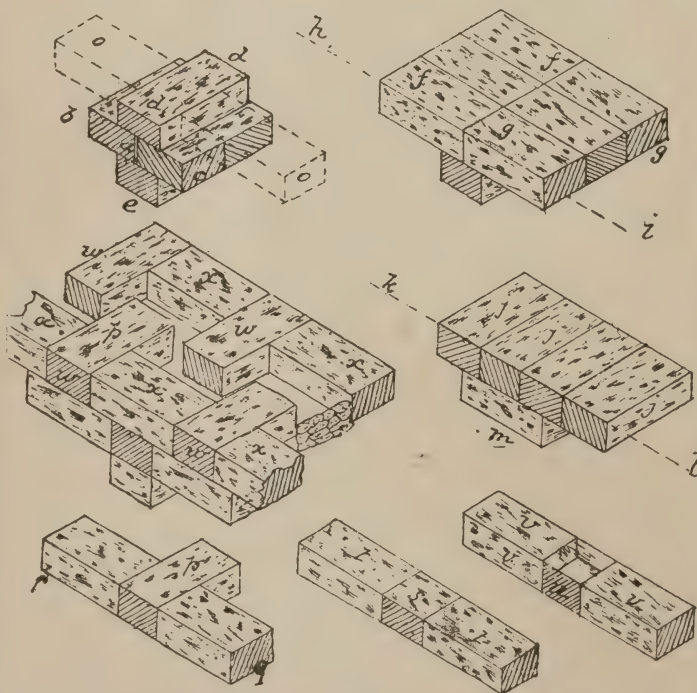


Fig. 2

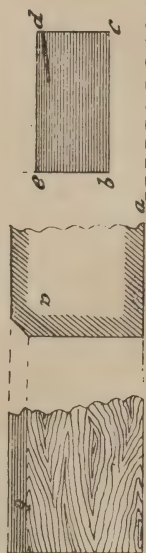


Fig. 3



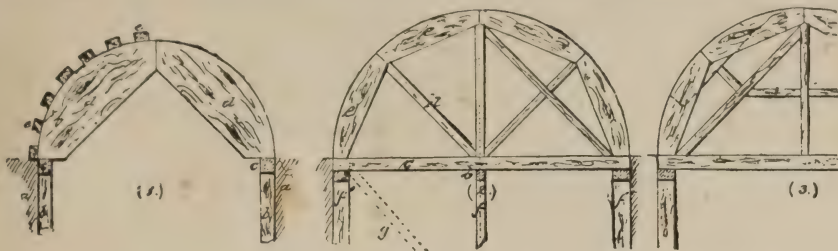


Fig. 1

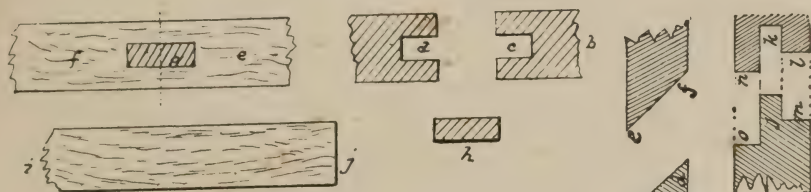


Fig. 2

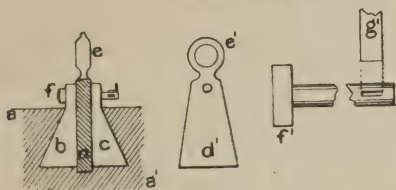


Fig. 3

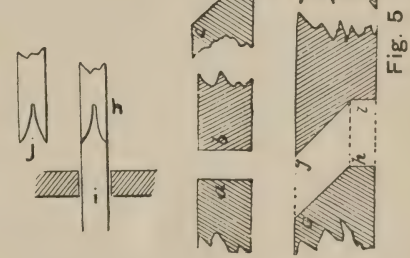


Fig. 5

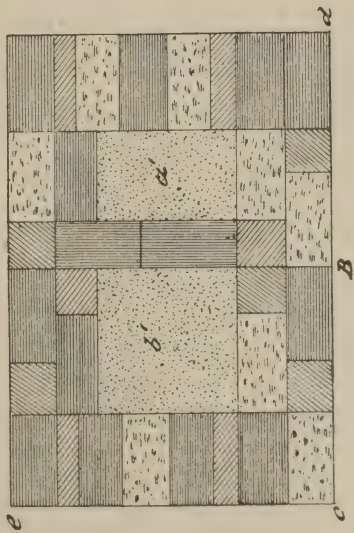
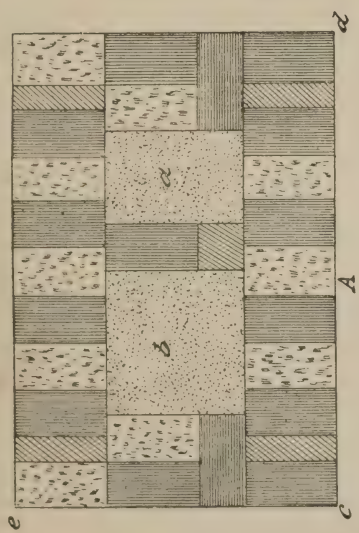


Fig. 4



A DICTIONARY OF TECHNICAL AND TRADE TERMS

OF

ARCHITECTURAL DESIGN AND BUILDING CONSTRUCTION.

ABBREVIATIONS EMPLOYED THROUGHOUT THE DICTIONARY.—*Der.* for “Derivation,” or the Linguistic Root of the Term; *Fr.* for “French”; *Ger.* for “German”; *Lat.* for “Latin”; *Gr.* for “Greek”; *O. E.* for “Old English or Anglo-Saxon”; *Eng. Pron.* for “English Pronunciation”; *Syn.* for “Synonyms,” or Equivalents in French or German, or in both; *Pron.* “Approximative Pronunciation.”

ARCHITECTURAL DESIGN AND BUILDING CONSTRUCTION.

ab

A

ab

Abacus, in *Architecture*. The final or uppermost member of the capital of a column in one of the orders of architecture, upon which in Classical architecture the Entablature (which see) rests, or in Gothic architecture from which the Arches (which see) spring. In Classical architecture, or what are called the Five Orders of architecture, the abacus is, in the Doric and Tuscan, a flat stone or tile, square in outline, with edges either plain or ornamented with mouldings. In the Ionic, Corinthian, and Composite Orders the abacus is square, but with each side hollowed out to a circular curve, and the corners cut off or truncated. In Gothic architecture the major portion of the capital being made up of foliage or ornament, the abacus is the only part which admits of mouldings being displayed. The form or outline generally determines the Gothic style or date of the capital. In the Norman it is square or plain, with the lower part chamfered (which see). In the Early English it is chiefly circular in plan; in the Decorated style it is either square, set diagonally, or circular, often octagonal. In the Perpendicular style the abacus is sometimes circular, but most frequently octagonal in plan. *Eng. pron.* abbey-kuss or ah-bay-kuss. *Syn. Fr.* *Abaque*, or *Tailloir*—pron. ah-baack, tah-ee-oh-ear or -eer—literally “a trencher” or “plate,” and this from *tailler*—pron. tah-ee-eh—to cut, carve, or dress; *Ger.* *Abacus* or *Capitalplatte*, or *Platte einer Säule*—pron. ah-back-us, kap-ee-tal-plattay or -plattch, platteh iner sow-lay.

Abattoir. A separate or detached building set apart for the slaughtering of animals designed to serve as butchers’ meat, with special conveniences and appliances. *Eng. pron.* same as the French; vulgarly various, as

ah-bat-ore or ah-batt-war. *Syn. Fr.* *Abattoir*—pron. ah-bah-twar or -tuah. *Der.* From the French verb *battre*, to strike or beat down, and this from the Latin *batuo*, I strike or beat down; *Ger.* *das Schlachthaus*—pron. shlaght-house—the ch or gh with the guttural sound (see Dissertation), hau pron. as between our word house and the *Ger. Haus*; from *schlachten*, to slaughter.

Abrevoir, in *Masonry*. The junction or juncture of the faces of two stones, the interstice between which is to be filled with mortar.

Abutment, in *Masonry*. The walls or piers at each side of an arched opening from which the arch springs and is supported, or upon which the ends of the arch abut. *Syn. Fr.* *Arc boutant*, or *Arc boutant culée* or *buttée*, or *Aboutissement*—pron. ark-boo-tangt (ng pron. nasally), kue-lay, buh-tay—ah-but-tease-mangh. *Arc boutant* means the ending of an arch—from *bout*, the end. *Culée* means a stern-way, also an abutment—from *culer*, to go astern (koo-lay). *Buttée* means abutment. *Syn. Ger.* *der Brockenkopf*, or *Anstoss*, or *Strebe Pfeiler*—pron. brocken-kopf, ann-stoss, stray-beh-fer. *Brockenkopf*, from *Brocken*, a fragment, and *Kopf*, the head, i.e. the head-piece. *Anstoss* has a curious derivation—from *anstossen* (ann-stoss-ain), to push on or against, to stumble on—that is, the *Anstoss* is the stone which the entablature above it pushes against. *Strebe Pfeiler* is from *Strebe* (stray-bay), a prop, a stay, a buttress, and this from *streben* (stray-benn), to struggle against or contend with. *Pfeiler* is a pillar or pier, and this from *pfeilern* (file-airn), to provide or furnish with piers or pillars. Another German synonym for abutment is *Kämpfer*—pron. kemp-fer—which has a curious derivation, like *Anstoss* above named. The word means a fighter or com-

batant—from *Kampf* (kamff), a struggle, a combat—i.e. the stone which fights against the weight or pressure of the entablature, its resisting piece. Another German synonym is *Widerlager*—pron. vee-derr-lag-err—from *wider*, against or in opposition to, and *Lager*, a bed, a couch, and this from *lagern* (lah-gairn or -gern—g hard), to lay down, to found. *Der.* The verb *abut*, to terminate, border, or meet, is from the French *aboutir*, to border on, to end, and this from *à*, at, and *bout*, the end or extremity of an object.

Abutting Joint, in Carpentry. The junction of two pieces of wood or members of an assemblage of timbers or framing. In this joint the fibres are, or the length of the one piece is, perpendicular to the face of the joint, and of the other member parallel to the joint.

Acanthus, in Architecture. A plant the leaves of which treated in a conventional manner form the distinguishing feature of the capital of the Corinthian and Composite Orders in Classical architecture. The acanthus is the basis of a wide variety of ornamental forms used in the decoration of objects in art manufactures. Syn. Fr. *Acanthe*—pron. ah-kanth; Ger. *Bärenklau*, which is the German equivalent of the English name of the acanthus plant—Bear's Breech, or "the breech of the bear"—pron. bar-en-klow (from *Bär*, a bear, and *Klau*, a claw or clutch. The plant is also known as the Bank Ursine.

Accouplement, in Carpentry. A brace or strut in a truss or tie-beam. The term is purely French, and means a coupling—pron. ah-coople-mang. The English pronunciation should be the same, but it is generally given as ah-koopel-ment. The term *Accoupled* (Eng. pron. ah-koopeld) has for its French synonym *Géminé* (pron. ghay-me-nay), which has a curious derivation, as the word means iterated or repeated, and this from *gêmeaux* (ghay-moh), and Lat. *geminus*, the twins, that is, for example, two coupled or twin beams. The same idea is conveyed in the German synonym, which is *Zwillingspaarig* (from *Zwilling*, twins or two, and *Paar*, a pair. The root of the term *Accouplement* is the verb *accoupler* (ah-koop-lay), to tie together, to pair or to couple.

Acroteria, in Architecture. Small pedestals for busts or statues placed in pediments at the apex or point of meeting of the angular sides, or at the corners or lower part of the pediment. Syn. Fr. *Acrotères*—pron. ah-kro-tares; Ger. *Giebelzinnen*—pron. gee-bel-zin-nen. *Der.* *Giebel*, a gable, triangular wall or pediment, and *Zinne* (zin-nay), a pinnacle.

Adhesion, in Building Construction. Means the result of joining two separate pieces of material of the same or different character by means of a third material, as

a cement, a glue, or a mortar. It also includes the connection maintained by a body, as a pin or nail driven into timber. The principle of adhesion is of special value to the joiner and cabinet maker in gluing the pieces of their work together. It lies also at the base of all work in which cements and mortars are used in masonry, and pins and nails in carpentry. Some idea of the adhesive strength of an iron nail driven into wood may be had, when we state that one driven into dry oak to the depth of two inches will require a force of half a ton to pull it out. The adhesion of nails to wood is much influenced by the relation the nail has to the fibres of the wood. If a nail driven into elm requires a force of 260 lb. to pull it out when driven endways—that is, parallel to the fibres—it will require a force of 330 lb. to pull it out if driven sideways or at right angles to the fibres. If two pieces of wood are well glued together with ordinary glue, the adhesive force, being reckoned at 700 lb. to the square inch, is often much greater than the cohesive force of the wood itself, taken at 560 lb., so that the wood may give way at its solid part before it gives way at the joint. *Der.* From the Latin word *adhæreo*, and this from *ad*, to, and *hære*, to stick—to stick to. Syn. Fr. *Adhésion*—pron. add-haze-ee-ong (from *adhérer* [add-herr-eh], to adhere); Ger. *Anhaften*—pron. ann-haff-tane, to stick to (from *anhafen*, to grapple with, to clasp).

Adjust, in Construction. To place one piece in relation to another, so that when secured together they will lie in proper position. When two flat surfaces are to be adjusted they must be made perfectly true and "just"—as the technical term is, which is simply an abbreviation of the word *adjust*—so that no rocking or riding movement can take place between the pieces, but the pressure will be equally distributed over the whole of the surfaces. The technical term "justifying" work is the act of making the pieces true and "just." *Der.* From the Latin *ad*, to, and *justus*, right, true, correct. Syn. Fr. *Ajuster*—pron. ah-jooze-tay, to adjust or fit together (*ajustage*—pron. ah-jooze-tajgh, is the act of adjusting); Ger. *Berichten*—pron. bay-reegh (guttural sound) -ten (*Richt* [reeght], right), to make right or correct.

Adze, in Carpentry. A tool bent or curved in face, with sharp cutting edge, fixed at right angles to the handle and at its lower extremity, so that the edge is towards the workman, who moves backward as the operation proceeds. It is used for roughing off or rendering partially flat and smooth the surfaces of logs or bulks or large timbers. Syn. Fr. *Herminette*—pron. herr-me-nett; Ger. *die Krummhaue*—pron. dee croom-how-eh (*krumm*, crooked, bent or curved, from the verb *krümmen* [crem-en], to bend, and

Hauē, a hoe, a mattock, from *hauen*, [how-enn or -anē], to hew, to cut, to chop or chip, as an adze does).

Agreement, or Contract. A document containing the terms of an arrangement or bargain relative to the purchase of land for the site of a building, preliminary to the regular Deeds, or as to work of any kind to be done. *Der.* From the French verb *agréer*—pron. ah-gree-eh, to be in accord, of one mind, and this from *gré*—pron. gray, will, liking, accord; hence the phrase *bon gré, mal gré*, equivalent to our phrase "will ye, nill ye," i.e. whether you will or like it or no. Syn. Fr. *Convention* or *Pacte*—pron. kong- or kon-vahn-see-ong, pakt; Ger. *Vertrag*—pron. fare-traigh, and derived from *tragen*, to carry, to bear.

Aiguille, in Architecture. A French term sometimes used in place of its English synonym Pinnacle (which see for derivation). This term is used chiefly in relation to Gothic architecture, and denotes the pointed termination to certain parts, as buttresses. They are in the Decorated style especially beautiful as regards the ornamentation. The term *Aiguille* is simply the French word *aiguille*, a needle—pron. ah-gweel.

Aisle, in Architecture. The side divisions or bays of a church, as distinguished from the body, nave, or central part. The term is derived from the French word *aile*, a wing—pron. ah-il, or somewhat like our word *isle*, which is nearly the English pronunciation of the word *aisle*. Syn. Fr. *le Bas-côté*—pron. bah-cot-tay (from *bas*, low, and *côté*, a side); also the word *Aile* as above; Ger. *Seitenschiff*—pron. zite-enn-sheeff—from *Seite* (zite-eh), a side or flank, and *Schiff*, a nave (also a ship).

Alcove, in Architecture. A recessed part in a building or room, or in garden buildings. In Continental countries, where the alcove forms part of a room as affording a recess for a bed or couch, it is separated from the main apartment by pillars or pilasters, termed an *Estrade*—pron. eh-strahd. Syn. Fr. *Alcove*—pron. all-kove; Ger. *Alkoven*—pron. all-kove-en.

Alto Relievo, in Sculptured Work in Architecture, or Art Decoration. Figures cut or carved so high as to appear very nearly detached from the surface or base. Eng. pron. all-toe ray-leev-oh. When the relief or projection is just half the depth or height of figure, the term used is *Mezzo-relievo*, meaning middle relief—pron. med-dzo-ray-leev-oh. When it is less than half its full projection, the relief is termed *Basso-relievo*, meaning low relief—pron. bas-soh-ray-leev-oh. Syn. Fr. *Rondebosse*—pron. rongd-boss—from *ronde*, round, *bosse*, a knob, a lump; Ger. *Hochrelief*—pron. hoch (the guttural sound of ch) -ray-leaf (*hoch*, high).

Angels, in Architecture. Brackets or

Corbels (which see) finished with the heads and necks of angels. They are chiefly used in Gothic or Pointed architecture.

Angle Bar, in Carpentry. The window bar at the corner of a projecting window.

Angle Float, in Plastering. A tool termed a "float" (which see), made to suit the inside angle formed by the meeting of the two sides of a room, to work the surface of the plastering.

Angle Iron, in Iron Work for Roofs, Bridges, etc. Bars of wrought iron rolled so as to have their two sides at right angles to each other, thus: L. Syn. Fr. *Fer à cornière*—pron. fair ah korn-ee-air (*fer*, iron, *cornière*, a gutter or corner plate—from *cornier* [korn-ee-eh], a corner); Ger. *Winkel-eisen*—pron. vin-kel-ize-en (from *Winkel*, a corner, angle, and *Eisen* [ize-enn], iron).

Angle Rafter, in Carpentry. Otherwise termed a "hip-rafter," being the rafters placed at the corners of a building which is covered with a hipped roof or truss, of which the ends have the same inclination or angle of slope as the sides.

Annulet, in Architecture. A narrow moulding, square or flat on face, used to separate other mouldings. The narrow and flat or squared face moulding, or part separating the flutings or hollowed-out parts in columns or pillars, or in pilasters, are also called annulets. The word is directly derived from the Latin *annulus*, a ring. Syn. Fr. *Annelet*—pron. ann-lay; *annelet*, a little ring, from *annelet* (ann-lay), to curl or twist round; Ger. *Ringelchen*—pron. ringel-chen, a ringlet—from *ringeln*, to curl or bend round, to ring.

Antæ, in Architecture. Flat pillars, otherwise termed "pilasters," projecting from a wall. Syn. Fr. *Antes*, or *Pilastres*—pron. an-taes, pea-lasstz; Ger. *Anten*—pron. antane or -tenn.

Ante-chamber, in Architecture. In domestic architecture usually termed an ante-room—a small room attached to, or connected with, a larger apartment, entered either before or from the large room, as the ante-room of a drawing-room. Syn. Fr. *Antichambre*—pron. aunt-eh- or aunty-shawm-berr; Ger. *das Vorzimmer* (*vor*, before, *Zimmer*, chamber)—pron. foretzeem-err; also *das Eintrittzimmer* (*Eintritt*, entry, entrance)—pron. ine-trit-zim-err.

Antiseptic, in Materials. A substance generally liquid, or used as a paint, employed to preserve timber, etc. *Der.* From two Greek words—*anti*, against, and *septikos*, decay or putridity. Eng. pron. anty-sepp (*not* skepp, vulg.) -tick. Syn. Fr. *Agent anti-putride* or *-septique*—pron. ajz- or awj-ang antee-puuh-treed or -sepp-teeck, an anti-putrid or antiseptic agent; Ger. *Fäulnisswidrig*—pron. föil-niss-vee-dreeg—from *Fäulniss*, rottenness, *widrig*, repugnant

or averse to—literally “a substance opposing putridity.”

Apart, in Construction. A term used to denote the distance between two pieces, as two beams or walls, and is equivalent to the expression “the distance or length in the clear or inside dimensions.” Syn. Fr. *Dans* (within), *Œuvre* (work)—pron. dangs-oo-v or dang-zoo-ve-uh, or dangz-oo-vh-er; Ger. *Innerlich* (internal) *im* (contr. for *in dem*, in the), *Gebäude* (building or edifice)—pron. in-err-leegh im geh-boy-deh.

Apartment in Basement, Cellar, or Underground. In some parts called the “cellar kitchen.” Syn. Fr. *Tellier*—pron. tell-ee-eh; Ger. *Unterirdisches Gemach* (from *unter*, under, *irdisch*, earthly, and *Gemach*, a room or chamber)—pron. oon-tare-eer-dee-shess gay-magh.

Apartment, in Domestic Architecture. A room or chamber in the house, as distinguishing one room from another—literally “a place set apart.” Syn. Fr. *Appartement*—pron. ah-part-mang; also *Chambre*—pron. shawm-ber; also *Pièce*—pron. pee-ace; Ger. *das Zimmer*—pron. tzim-err; also *die Stube*—pron. stoo-beh; also *die Kammer* (a chamber)—pron. kahm-merr.

Aperture of a Door, in Architecture. Otherwise called a door void, or opening. The space left in the wall of a house in which the door-frame is fitted. Syn. Fr. *Jour de porte* (from *jour*, a day, figuratively “a hole showing daylight,” and *porte*, a door or gateway)—pron. joohr, or zhoor-deh-pohrt; Ger. *die Thüröffnung* (*Thür*, a door, *Oeffnung*, opening)—pron. tuh-eff-noong.

Aperture of a Window, otherwise called a Window Void, or Opening. The opening left in a wall into which the casement or window-frame is to be fitted. Syn. Fr. *Bail* (bay) *de croisée* (casement)—pron. bahl-deh krwah-say; Ger. *die Fenster* (window) *Oeffnung* (opening)—pron. fen-stare eff-nung.

Apex, of a Gable. The upper or highest point. The term is purely Latin, meaning the top, upper part, or summit of any object. Eng. pron. eh-pex, not ah- or awe-pakes. Syn. Fr. *Sommet* (the summit) *de Pignon* (gable)—pron. som-may deh pee-nyong, or peen-yong; Ger. *der Scheitel* (top or crown) *der Giebel* (gable)—pron. shi-tel, derr gee-bell.

Apiary, in Garden Architecture. A house, or rather a covered stand or shed, for the reception of the hives of bees and their shelter from the weather. Der. Latin *apiarium*, and this from *apis*, a bee. Syn. Fr. *Rucher* (from *ruche* [pron. roosh], a hive)—pron. roo-shay; Ger. *der Bienenstand* (*Bienen*, a bee, *Stand*, a station or position)—pron. bee-nen-standt; also *das Bienenhaus*—pron. bee-nen-howss.

Apophygee, in Mouldings. The curve—

frequently the quadrant of a circle, though it may be a lesser arc—which joins the bottom or lowest part of a column or shaft of an “order” or of a Pilaster (which see), with the uppermost member of the base—or conversely, the curve joining the top of a shaft with the lowest member of the capital. It is sometimes, though not generally, known also as the “scape” of a shaft, column, pillar, or pilaster. Syn. Fr. *Congé*—pron. kohn-gjay; Ger. *Anlauf*—pron. ann-lowf. Eng. pron. ah-poff-ee-gee (g soft).

Approach, in laying out house sites and grounds. The road or walk leading from a public or private road to the house. Der. From the French verb *approcher* (app-ro-shay), to bring or come near to, and this from *proche* (prohsh), near to. Syn. Fr. *Abord*—pron. ah-bore, approach, access to, landing, and this from *aborder* (ah-bore-day), to come near to; Ger. *Zugang*—pron. tzoo-gang, an avenue, an approach (from *Gang*, a walk or passage).

Apron Lining, in Joinery. The boarding, generally panelled, which covers the end of the steps supported by the carriages otherwise known as the string-board. Syn. Fr. *Revêtement* (clothing or covering) *de Limon* (carriage of a stair)—pron. ray-vett-mang day lee-mong; Ger. *die Beschalung* (from *beschalen*, to cover with a shell, from *Schale*, a shell), or *der Treppenbalcken* (from *Treppe*, a step, and *Balken*, a beam, i.e. the carriage for the steps)—pron. dee beh-shawl-oong, derr trep-pen-ball-ken.

Apse, in Architecture. The name given to the rounded form, generally semicircular, by which the aisles or the choir of a church are terminated. This feature is a peculiarly foreign or Continental one. Churches in France and Germany, and in many parts of Italy, are met with in almost every district, displaying it. In England it is met with chiefly in churches built in the Norman style, of which it may be said to be a peculiarity. The term apse is also applied to all projecting parts giving recesses or chapels at the sides of the transepts, etc. Eng. pron. apps. Syn. Fr. *Chevet*—pron. shay-vay, or *Rond-point*—pron. rond-pwang; Ger. *Baseliken*—pron. bah-seel-ee-kenn, so called from this being a feature of the early churches, changed from the Roman basilicas or halls of justice.

Aqueduct, in Architecture. A water-way or channel, either open or subterranean, or supported on embankments or arches. Der. From the Latin *aqua*, water, and *duco*, I lead, bring forward, or conduct—literally “a water leader or conductor.” Eng. pron. ah-qweh-duct. Syn. Fr. *Aqueduc*—pron. ack- or akk-dook (oo almost as in food). In German the word is spelt precisely as with us—pron. ak-kay-dookt; but *Wasserleitung* is very frequently, if not usually employed,

meaning literally "water leading," from *leiten*, to lead or guide—pron. lite-enn.

Arabesque, in *Architecture and in Ornamental Design*. That species or style of ornament used for the decoration of flat surfaces, as walls, in architectural work, and which is based upon natural forms, such as the branchlets of trees or shrubs, foliage, flowers, and fruit, but all treated in a perfectly conventional manner. All animal forms and figures, or that which has life, are rigidly excluded from all the ornamentation of the Arabesque style. Eng. pron. ah-rah-besk. Syn. Fr. *Arabesque*; Ger. *Arabeske*—pron. ah-rah-bes-keh. For the features of the Arabian architecture or building, see Moresque: the style is also known as the Saracenic or Moorish.

Arbour, in *Garden Architecture*. A structure, generally of rustic woodwork, erected in part of the grounds or garden of a house, to serve as a retreat in summer-time; hence called a summer-house. On the Continent the name *kiosk* is generally given to the structure; it is there made highly ornamental, generally with "cut wood" work. For this species of carpentry and joinery see the paper on "Ornamental Woodwork" in text; and for rustic woodwork see "The Garden Architect," and Supplemental sheets illustrating Garden Building, etc. A seat under a tree, and surrounded and partly shaded with shrubs, is sometimes called an arbour. Der. Lat. *n arbor*, a seat under a tree. Syn. Fr. *Berceau* (a bower)—pron. bare-soh. Curiously enough, this word also means a cradle—that is, an inclosed space. Ger. *der Laubenbogengang* (from *Laube*, a bower, and this from *Laub*, foliage, covert; *Bogen*, bow or arch, and *Gang*, walk or course)—pron. lugh-benn-bogh-enn-gang. This is a fair example of the compounded German words alluded to in the Dissertation, although there are many vastly longer than this. Obviously the mere term would be to the reader ignorant of German a meaningless array of letters, unless we analysed it or separated its parts and gave their meaning. (See Trellis Work.)

Arcade, in *Architecture*. This term denotes an arrangement of arches in line supported by columns or pillars, the spaces between which may be open, or the back of the columns may be filled in with masonry. In the latter case the arcade is a method of ornamenting walls, as those of churches. In common language, an arcade means a street or passage covered or arched in with a glass-lighted roof. Syn. Fr. *Arcade*—pron. are-kad; Ger. *Bogengang*—pron. boh-genn-gang—from *Bogen*, a building, and *Gang*, a walk, passage, or gallery.

Arch, in *Masonry and Bricklaying*. The arrangement of stones or bricks thrown over an opening in a wall, or spanning the

space between two piers or columns, and by which the weight placed above the arch and the pressure of the arch itself is thrown upon the side piers or columns, termed technically abutments. The inner or concave side of the arch is termed its "intrados"; the outer or convex, the "extrados." The stones forming the arch are cut wedge-shaped; the central stone of the arch is called the "keystone," and the wedge-shaped blocks on either side are termed "voussoirs." The first of the side stones or voussoirs from which the arch springs, or those lying on the top course of piers or columns, are termed the "springers." The width between the piers or abutments is called the "span" of the arch, and is measured on a horizontal line, called the springing line, supposed to be stretched from one abutment to the other. What is called the "rise" of the arch is the vertical distance measured from the centre of the "springing line" to the under side of the keystone. The highest part of the arch is called its "crown," sometimes its "vertex." The parts of the building or walls behind the extrados or outside of the arch, which fill up the space between the abutments and the line of "crown" of arch, are called the "haunches." The intrados, or inner or concave curve of the arch, is generally known as the "soffit." All the above terms will be found described in due alphabetical order. Arches are of different forms, and vary from the simplest of all, the semi-circular or half-round, to the segmental one, and the different kinds of pointed arches in Gothic architecture. Der. The word comes from the Latin *arcus*, a bow. Syn. Fr. *Arc*, *arche*; Ger. *Bogen*.

Arch-butment, in *Masonry*. Struts or supports with arched arrangement which spring from the buttresses of aisles in a church in the Pointed or Gothic style, and resting against the walls above, as those of the clerestory—the purpose being to relieve the direct or continual outside pressure of the central vaulting. The arrangement is otherwise termed a "flying buttress." Syn. Fr. *Arc boutant*—pron. ark-boo-tang; Ger. *Steigender Bogen*—pron. stige-enn-derr boh-genn (steigender from *steigen*—pron. stige-enn, to ascend or step up).

Arch, Gauged, in *Bricklaying*. An arch in which the bricks radiate from a common centre. Syn. Fr. *Voûte jaugée*—pron. voot-or vut-joh-jhay—from *jaugé* (jhogé or jozeh), a gauge or measure, and this from the verb *jauger*, to gauge (zho-zhay).

Arch, Inverted, in *Masonry and Bricklaying*. Used in foundation work to distribute and relieve the pressure between two opposite walls. As its name imports, it is an arch reversed or turned upside down, the concave surface or intrados being the

upper side nearest the surface, the extrados or convex surface being next to and resting on the ground or foundation soil. *Der.* From the Latin *inverso*, I turn upside-down, and this from *in* and *versus*, against. Syn. Fr. *Arc renversé*, or *Radier*—pron. ark rang-verr-say, rah-dee-aye (*reverse*—pron. rang-vaire—turned on one's back, backwards, and this from *renverser* [rang-vare-say], to turn back, to invert); Ger. *Umgekehrter Bogen*—pron. oom-geh-kayr-terr bo-gen (*umgekehrt*, inverse, inverted, and *Bogen*, an arch).

Architect, in Building. The profession which undertakes the designing or planning of all buildings, the preparation of the working drawings, the specifications of, and the general superintendence of the work to be done. Syn. Fr. *Architecte*—pron. ar-shee-tekt; Ger. *Baumeister*—pron. bough-mice-terr (*Bau*, a building, and *Meister*, a master)—literally “head or master of the works in building.”

Architrave, in Architecture. That member of the entablature of an “order” or “style” which rests on the Abacus (which see) or uppermost member of the capital. The term is also applied to the moulding, which is sometimes carried round or attached to the outer face of an arched opening. Eng. pron. ark-ee, not ar-chie.

Architrave, in Joinery. The moulding, more or less ornate, which is carried round the sides and top of window or door openings, apertures, or voids. Syn. Fr. *Architrave*—pron. ar-shee-trahv; Ger. *Unterbalken, Hauptbalken*—pron. oon- or un-tare-bahl-ken, hauhpt- or howpt-bahl-ken (*unter*—oon-terr or -tare, under, and *Balken*, a beam, *Haupt*, head or top)—literally “the head or top beam.”

Archivolt, in Masonry, is almost synonymous with the intrados or soffit of an arch (see Arch), as it means the interior or concave curved surface of an arch as measured from one pier or abutment or impost to the other. Where this surface is not plain—in which case the term soffit is applicable—but is broken up by projecting parts, giving the appearance of a number or cluster of arches one within the other—the term is more strictly applicable. And this feature of arches is a very noticeable one in Pointed or Gothic architecture, in which they are sometimes distinguished by the title “recessed.” If the general arch is broken into two divisions, it is said to be a double recessed arch, and so on. *Der.* Probably from *voler* (vol-lay), to fly—a flying arch. Syn. Fr. *Archivolte*—pron. ar-shee-vohlt; Ger. *Unterbogen*—pron. oohn- or oon-terr-boh-gen—literally “the under arch.”

Arch, Oblique, or on the Skew, in Bricklaying or Masonry. In this the line of face of arch is oblique, or at an angle

to the line of archway, as when a railway crosses a public road at an angle not a right angle. *Der.* “Oblique,” from the Latin *obliquus*, slanting, leaning to one side; “Skew,” meaning the same, from the Gr. *skaios*, on the left—that is, not right—and this from the verb *skazo*, I limp or halt. Syn. Fr. *Arc de biais*—pron. ark de bee-ay-ee (*biais*, a slope, a slant, from *biaisement*—pron. bee-aiz-mang, a sloping direction); Ger. *Schiefbogen*—pron. sheef-bo-gen (*schief*, sloping, from *Schiefe*—pron. shee-feh, obliquity).

Arch, Relieving or Discharging, in Bricklaying. The arch-segmental turned or built over a timber Lintel (which see) stretching across the top of an opening, as that of a door or window, in order to relieve the lintel from the pressure or weight of the wall above the opening. Syn. Fr. *Arc en décharge*—pron. ark-eng-day-shar-jeh (*décharge*, an unloading or discharge, from *décharger* [day-shar-jhay], to discharge); Ger. *Entlastungsbogen* (from *Entlastung* [aint-last-oong] a release or discharge, and *Bogen*, an arch).

Arch, Segmental, or Scheme, in Bricklaying. In this the arch is part of a circle; when the bricks are laid so that their joints converge to, or radiate from, the centre of the arch, it is called a “scheme arch.” Syn. Fr. *Arc avec cintre aplati*—pron. ark a-veck (with) sang-tre ah-plah-tee (*cintre*, centre—see Arch, *aplati* from *aplatir* [app-lat-ee], to flatten or lower)—that is, an arch with a less rise than a semicircular arch, as an elliptical arch would have; Ger. *Stichbogen*—pron. steegh-boh-gen (*Stich*, a cut, and *Bogen* [boh-genn], an arch).

Arch, Semicircular, in Masonry or Bricklaying. As its name denotes, has the curve of its intrados or soffit the complete half of a circle. Syn. Fr. *Arc en plein cintre*—pron. ark eng pleing sangtre—literally “an arch with a full centre”; Ger. *Römischer Bogen*—pron. roem-ee-sherr boh-gen—that is, a Roman or Romish arch.

Archway. A road or path under an arch, or the arched entrance to a door. In this sense the Syn. Fr. is *Porte envoûtée* (vaulted doorway)—pron. pohrt-ang-voot-eh; Ger. *der überwölbte Thorweg* (*über*, over or above, *Wölben*, vault, *Thor*, gate, *Weg*, way)—pron. oo-bare-voelb-teh tor-vague.

Area (Basement), The Steps or Stairs to, have for their equivalents Syn. Fr. *Escalier d'un souterrain* (*escalier*, staircase)—pron. ess-kah-lee-eh (see above); Ger. *die Keller-treppe auf dem Vorhof* (*Keller*, cellar, *Treppe*, steps)—pron. dee kell-err-trep-eh owf dem fore-hofe.

Area, in Building. The space of ground on which the structure is placed. *Der.* Latin *area*, an open space or piece of ground, and this from *ara*, earth or hearth.

Syn. Fr. *Aire*—pron. air; Ger. *die Baustelle* (*Bau*, a building, *Stelle*, a stand, position)—pron. bough-stel-leh.

Area, in Domestic Architecture. The free or vacant space in front of the basement story of a building, and which is reached from the outside street or road level by steps. Syn. Fr. *Aire d'un souterrain* (underground floor)—pron. air-duhn soo-tare-ayne; Ger. *Bau-stelle, der Vorhof* (*vor*, before, *Hof*, a court or yard)—pron. bough-stell-eh, derr fore-hofe.

Area, in Measurement. The superficies or surface of a piece of ground or of a body, having length and breadth only. Area is denoted in building work as in square yards, square feet, or square inches, and is found by multiplying the length by the breadth in yards, feet, or inches. Syn. Fr. *Unité de surface* (*unité*, unit)—pron. uhn-ee-tay day soor-fass; Ger. *die Einheit der Fläche* (*Einheit*, unity, *Fläche*, extent, square measure)—pron. dee ine-hite, derr fleghe.

Argillaceous Soil or Earth, in Excavating, or Materials. Clayey, as an argillaceous sand is a sand mixed with clay soil, an argillaceous loam, loamy soil mixed with clay. Eng. pron. ar-geel-aish-ee-us. Der. From the Latin *argilla*, white clay, marl, potter's earth. Syn. Fr. *Terre argilleuse*—pron. tare or tair ar-geel-uuse—from *argile* (ahr-jeel), clay; Ger. *Thonerde*—pron. tonn-err-deh (*Thon*, clay, and *Erde*, earth, soil).

Arm Chair, in Cabinet Making. A chair with arms at the sides, which spring from the centre of the edges of back, and are carried forward and bent down to be joined to the front corners. Syn. Fr. *Fauteuil*—pron. foh-teuhl; Ger. *Lehnstuhl*—pron. layn-stoohl or -stuuhl (*Lehne*, a support, railing, and *Stuhl* [stuuhl], a stool); also *Armstuhl* (*Arm*, arm).

Arris, in Building Construction. The corner or line formed by the junction or meeting of two surfaces at angles—right or otherwise—to each other.

Arris, in Construction. To take off—that is, to chip, cut, or plane away—the corner of a body, making it splayed or bevelled off. Syn. Fr. *Epautrer*—pron. eh-po-tray; Ger. *Verstossen* (literally “to push forward”)—pron. fare-stoss-ane. To take the arris off from a block of ashlar-worked stone has for its Syn. Fr. *Epanneler* (from *panneau*, a panel), that is, to make the angle or corner flat—pron. eh-pann-lay; Ger. *aus dem Rohen behauen*, i.e. to hew (*behauen*) out of or off the rough (*roh*); also *die Kanten behauen*, to hew the corners (*Kante*) or edges off.

Artificer, in Building Construction. A skilled workman. Eng. pron. arr-tie-fis-irr. Syn. Fr. *Artificier* or *Ouvrier*—pron. arh- or arr-tee-fee-see-eh, oov-ree-eh; Ger. *Arbeiter Handwerker*—pron. aar-bite-err hand-ver-

kerr. Der. From the Latin *artificium*, and this from *ars, artis*, art, and the verb *facere*, to make.

Asbestos, in Materials. A mineral substance of a fibrous nature, which admits it to be made into substances resembling cloth or a fibrous material like wool. It is perfectly incombustible. It is now largely used for various purposes, as packing of joints, piston-rods, etc.; and a paint is also made of it, which is used effectively in buildings, rendering wood, etc., fire-proof.

Ash, in Materials. A forest-tree yielding a valuable timber noted for its tough quality. Syn. Fr. *Frêne*—pron. frenn; Ger. *der Eschenbaum* (*Esche*, ash, and *Baum*, a tree), or *die Esche*—pron. dee esh-eh.

Ashlar, in Masonry. Where the stone used for the exterior surface of a wall is hewn and smoothed, dressed or polished, it is called ashlar work. Syn. Fr. *Pierre de taille*—pron. pee-air day tah-ee-eh or tah-ee-yuh (*pierre*, a stone, and *taille*, cutting, dressing); Ger. *Behauener Stein*—pron. bee-how-enn-err stine (from *behauen*, to cut, *Stein*, a stone).

Ash Pit, in Domestic Architecture. A part of the outbuildings of a house in which the ashes from the fire grates and other refuse matters are deposited. Syn. Fr. *Cendrier*—pron. sang-dree-eh (from *cendres* [sangdre], cinders or ashes); Ger. *Aschgrube*—pron. ash-groo-beh (from *Asche* [ash-eh], ashes, and *Grube*, a pit or trench).

Asphalte, in Materials. A hard black bituminous substance, much used in conjunction with other substances, such as broken or powdered stones, spa, etc., as a material for the formation of road surfaces, walks, etc. It is found naturally in large quantities in different countries, notably in what are called the bituminous lakes of Eastern Europe. Syn. Fr. *Asphalte*—pron. ass-falt; Ger. *Asphalt*—pron. ass-falt.

Assemblage, in Carpentry. A term borrowed from the French to denote the combination of timbers forming a single framework; also the combination of two parts, as of two beams scarfed. (See Scarf.) Syn. Fr. *Assemblage*—pron. ah-sam-blaje; Ger. *das Einrahmen* (*ein*, in, *Rahmen*, a form or frame)—pron. dass ine-raw-menn.

Astragal, in Joinery. A fillet with rounded edge, generally semicircular. It is a term sometimes used as synonymous with sash-bar or bar supporting the panes of glass in a window-frame. Syn. Fr. *Astragle*—pron. as-trah-gal; Ger. *der Säulenfranz*—pron. sowl-en-phrantz (from *Säule* [sow-lay], a post or pillar, and *Franz*, a band).

Attic, in Architecture. In classical styles, an apartment or range of apartments of low altitude at the top of the structure. In common buildings it designates a room in the roof of a house. Syn. Fr. *Attique*—pron.

at-teck; Ger. *die Dachstube*—pron. dagh-stoo-bay or -stuh-bay (*Dach*, a roof, and *Stube*, a room)—literally “a room or chamber in the roof.”

Auger. A tool used in *Carpentry* to bore holes in timber to receive trenails (which see), or wooden pins, etc. It is a long iron bar provided with an eye at the upper end, through which a cross handle is passed to work the tool. The lower-end is provided with a cutting screw, having a sharp point and edges, which, as the handle is turned round by the workman, keeps entering into or descending into the timber, the larger part of the screw cutting with its sharp edges the hole in the wood. The twist or pitch of the screw enables the cut chips to clear themselves from the hole as it is formed—these rising up to the surface, from which they are swept away from time to time by the workman. Syn. Fr. *Tarrier*—pron. tar-ee-air; Ger. *der grosse Bohrer*—pron. derr gros-seh-bore-er, meaning a borer for great or large, as a gimlet is for small holes in timber, which is simply *der Bohrer*, the borer.

Avenue, in Laying-out Grounds or Garden. A walk generally bordered by trees or shrubs. *Der.* The word is purely French, and is derived from the French *avenir*, a prospect, and this from the verb *avenir*, to happen, as in looking forward for something to happen, in prospect—pron. ahv-neer. The French is derived from the Latin *ad*, to, and *venire*, to come. Syn. Fr. *Avenue*—pron. av-neugh; Ger. *der Baumgang* (*Baum*, a tree, *Gang*, a walk)—pron. boughm-gang.

Aviary, in Garden Architecture. A structure erected in the grounds or garden of a house, in which birds are confined for display. It is composed of open wire-work or wire netting for the upper part, with a solid or enclosed base. The interior is fitted up with perches, or in large aviaries a tree is inclosed, or small shrubs. *Der.* From the Latin word *aviarium*, and this from *avis*, a bird. Syn. Fr. *Volière*—pron. vohl-ee-air (from the Latin verb *volere*, to fly—that is, a contrivance to prevent the birds flying away, or to show off their flying or moving about while encaged.

Back, in Carpentry and Joinery. The side of a piece of timber opposite to the face. An exception to this is in the case of a rafter in a roof, or a handrail in staircasing, where the back denotes what in reality is the face—that is, the upper or exposed side.

Back, in Slater's Work. The “back” of a slate is the upper or exposed side of it.

Back Door, in Domestic Architecture. The door which leads to or from the back part

Ger. *das Vogelhaus*—pron. dass fog-el-house—from *Vogel*, a bird, and *Haus*, a house.

Awning, Window, in Domestic Architecture. A covering of wood, sometimes of thin sheet-metal, placed in front and at the upper part of a window to keep off or temper the sun's rays. It is frequently made a permanent part of the building, and is more or less ornamented in keeping, or otherwise, with the general style of the structure. It is also in some patented contrivances so arranged that it can be shoved or pulled back into a recess so as to be quite concealed when not in use. The term is a corruption of the Old English word *haihelian* or *helan*, to cover over or up. Syn. Fr. *Tente d'un fenêtre* (*tente*, tent or awning, *fenêtre*, a window)—pron. tangt duhn fay-natre or fay-nate-uh; Ger. *Fenster Dachung* (*Fenster*, window, and *Dach*, a roof)—pron. fane-stare dagh-oong.

Axe, in Carpentry. A steel edged tool used for cleaving and splitting wood, and for taking off the surface in a rough way. The front edge is generally slightly rounded, and of steel to the breadth of an inch or so. The handle is inserted in an eye near the back, and is at right angles to the side of the tool. The extreme back beyond the handle eye is formed into a projecting part with a flat steeled face; this part, termed the “poll” of the axe, serves as a hammer for driving spikes or trenails, large nails, etc. A small light axe under two pounds weight is termed a “hatchet,” being used with one hand only. The Old English form is *eax*, the Icelandic *axa*; the Greek word is *axine*, and the Latin *ascia*. Syn. Fr. for the whole tool, handle included, *Hache*—pron. hahsh; for the head or metal part, *fer de hache*—pron. fare duh hahsh; Ger. *die Axt* or *das Beil*—pron. dass bile.

Axis, in Masonry and Carpentry. The assumed or imaginary line passing through the centre of base to centre of apex, as of a circular vault or dome; the centre line of a body. *Der.* Latin *axis*, north or south pole of the globe. Syn. Fr. *Axe*—pron. ahx; Ger. *die Mittellinie* (*Mittel*, middle or centre, *Linie*, line)—pron. der mit-til-leen-e-eh.

B

Back, in Carpentry and Joinery. The side of the premises, yard, garden, back road or lane. Syn. Fr. *Porte de derrière*, also *Porte dérobé* (the derivation of the last-named term is curious: from *dérober*, to steal quietly, privately, intrigue, back-stairs influence)—pron. pohrt deh dare-ee-air, pohrt day-robe-ay; Ger. *Hinterthor* (*hinter*, behind or back, *Thor*, a gate)—pron. hinn-terr-tore.

Backer, in Slating. A narrow piece of slate used to make up the middle of a large

square slate, which gets narrow at the upper edge or side.

Back Flap, in Joinery. An additional board or leaf added to the shutter-board of a window, in order to cover the full width of the window opening. In a very wide window there may be two or more back flaps. (See Window.)

Back of a Wall, in Masonry or Brick-laying. The face of a wall opposite to that which is known as the front face. Syn. Fr. *Parement postérieur*—pron. pahr-mang post-are-ee-ur (*parement*, a face or facing); Ger. *Innere Mauerflucht* (*innere*, in, *Mauer*, a wall, and *Flucht*, a range or row)—pron. in-err-eh mough-err-flooght.

Back Room, in Domestic Architecture. A room, chamber, or apartment at the back of a house—that is, one which does not look on the front street or roadway. Syn. Fr. *Chambre* (see Apartment) *de derrière*—pron. shawm-berr deh derr-ee-air; Ger. *die Hinterstube* (*hinter*, behind, *Stube*, a room)—pron. hinn-terr-stoo-beh.

Backs, in Carpentry. A term sometimes, though not generally, used to denote the "principal" as distinct from the common rafters of a roof truss. Syn. Fr. *Arbaletrier*—pron. ahr-bah-lay-tree-eh; Ger. *die Sparren*.

Back Stairs, in Domestic Architecture. In large houses the servants' apartments are placed together behind, and approached by a special staircase, which leads to or from the working part of the house, as the kitchen, etc. The term is also applied to cottages built on the composite principle—that is, of two stories, each story embracing the whole accommodation of the cottage; one house (the ground story) entering from the front at the ground level; the other (the upper story) from the back by stairs or an outside flight of steps. Syn. Fr. *Escaliers de service* (house service)—pron. ess-kal-ee-ay deh serr-vee-ee (*escalier*, a staircase or stairs); Ger. *die Hintertreppe*—pron. hinn-terr-trep-peh (*hinter*, behind, and *Treppe*, a step).

Back Wall, in Masonry and Bricklaying. The wall at the back part of a structure. Syn. Fr. *Mur en dos* (*mur*, a wall, *dos*, back)—pron. muhr ang doh, or doe; Ger. *Hintermauer*—pron. hinn-terr-mou-err.

Back Window, in Domestic Architecture. A window placed at the back part of a house. Syn. Fr. *Fenêtre de derrière*—pron. feh-neh-terr deh derr-ee-air (*fenêtre*, window, *derrière*, behind); Ger. *Hinterfenster*—pron. hinn-terr-fenn-ster (*Fenster*, a window).

Balcony, in Architecture. A gallery or floor space projecting in front of a window, and supported from below by brackets (which see) or trusses—sometimes, as in the case of a low story, from the ground by columns or pillars. The floor space or balcony is usually guarded by iron railings, or by a balustrade

(see below). Syn. Fr. *Balcon*—pron. bahl-kong; Ger. *Balkon*—pron. bahl-konn; also *Söller* (a loft, a platform)—pron. so-el-err.

Balk, in Timber. A log or trunk of a tree squared. Syn. Fr. *Arbre couché* (from *coucher*, to lie down—that is, "felled")—pron. ahr-r-berr-koo-shay; Ger. *die Balken* (a beam)—pron. dee ball-kenn.

Ball Ornament or Flower, in Masonry. In Gothic mouldings this is a characteristic feature chiefly met with in the Decorated style, and used at intervals in the space of a deeply recessed or hollow moulding. The "ball" or central rounded part is partially enclosed by the three leaves of the flower.

Baluster, in Joinery. Often corrupted into Banister. The wooden bars in plain work, square in section, but otherwise chamfered (which see) or ornamental, which form the protecting rails to a staircase. These bars, placed vertically, are supported by the step and by the handrail at top.

Baluster, in Masonry. A short pillar, generally circular in section, the characteristic feature of which is the bulging-out part or "swell" of the lower part. Syn. Fr. *Balustre*—pron. bal-oost-er; Ger. *Geländer*—pron. gay-lenn-derr (from *Gelände* [geh-lenn-dy], land or landing).

Balustrade, in Masonry. A number of balusters in line, or a range of balusters. Eng. pron. bal-us-trahd or bal-us-trade. Syn. Fr. *Balustrade*—pron. bal-oost-trawd; *Trallage*—pron. trah-laj or -lahdge; Ger. *die Brustlehne* (*Brust*, the breast, and *Lehne*, a support or prop, and this from *lehnen*, to lean against—meaning "a support breast high")—pron. bruhst-lay-neh.

Balustrade (of a Window), in Architecture. The balusters or rails for the protection or guard of a balcony in front of a window. Syn. Fr. *Appui* (support, stay)—pron. ahp-wee; Ger. *die Fensterbank* (*Fenster*, a window, *Bank*, a bench)—pron. fenn-ster-bank.

Band, in Masonry and Joinery. A flat moulding, square in section but in low relief, often termed—direct from the Latin name *fascia*—a fascia (pron. faesh-yah or faish-ee-ah); the term indicates a flat square string course. Syn. Fr. *Bande*—pron. bahnd; Ger. *Leiste*—from *leisten* (lice-stane) to form—pron. lice-teh.

Banker, in Masonry. The bench on which stones are placed to be cut or tooled.

Barge Board, in Carpentry or Joinery. A board, cut or otherwise ornamented, placed in front of and projecting over the gable of a roof. It is chiefly used in houses in the Gothic or domestic Gothic style, and is an ornamental screen, so to say, to conceal the timbers of the roof. In ordinary houses its place is taken by a plain fascia board (see Band). Syn. Fr. *Bord de pignon*—pron. bohrd day peen-yong—literally "edge or border of the gable"; Ger. *die Sternbrett*—pron. dee

stern-brett—from *Stern*, face or front, and *Brett*, a board or plank.

Bar Iron, in *Materials*. The flat bars used sometimes as ties in place of circular or round rods in iron roofs, also for covering and connecting plates in junction bars. Syn. Fr. *Fer barres* or *Fer en barres*—pron. pher or ferr barres or ferr ang barres; Ger. *die Barreneisen*, *die Stangeneisen*—pron. dee barr-en-ize-en, stang-enn-ize-en (*Stange*, a stake or bar, *Eisen* [ize-ane], iron). See Rod Iron, Square Iron Bar, Flat Iron Bar.

Barrel Vault (Annular or Ring), in *Masonry or Bricklaying*. (See Vault.) One of the simplest and earliest forms of vaulted roofs or coverings, so called from its supposed resemblance to the interior of a half-barrel standing on its edges. It is thus in section a semicircle, and in plan the side walls form a ring or annular space. Syn. Fr. *Berceau* (a vault, a cradle) *tournant* (turning or like a circular line returning upon itself)—pron. bare-soh toor-nang; also *une Voûte annulaire sur le noyau* (*noyau*, the core or centre-stone, as theewel post of a staircase)—pron. uhn voot ann-you-lair suhr leh no-yoh; also *Voûte en vagon* (a cart or wagon)—pron. voot ang vagg-on; Ger. *das Ringgewölbe* (*Ring*, a ring, *Gewölbe*, a vault)—pron. ring-geh-vohl-beh; also *Tonnengewölbe* (*Tonnen*, a tun or large barrel)—pron. toenn-geh-voll-beh.

Barrow (Hand), in *Masonry*. A timber platform, with two handles at each end, used for carrying or transporting stones from place to place. Syn. Fr. *Civière* or *Brancard*, a litter—pron. see-vee-air, brahn-kard; Ger. *Trage*, a litter—pron. trah-geh (from *tragen*, to carry or bear).

Barrow (Wheel), in *Excavating and General Work*. A small carriage running on one wheel and with two handles. Syn. Fr. *Brouette*—pron. bruh-or broo-ett; Ger. *Schubkarren*—pron. shoob-kar-ren (from *Schub*, a shove, *Karren*, a carriage)—literally “shove or push cart.”

Bars (of a Sash Window), in *Joinery*. The pieces of wood which separate the panes of glass from one another, and support or carry them; otherwise termed sash bars, sometimes astragals. Syn. Fr. *Barreaux* (*barreau*, a bar) *pour croisée* (casement)—pron. barr-oh poor crwah-zay; Ger. *die Fensterstäbe* (a rod or stick)—pron. dee fenn-sterr stay-beh.

Bar, Shutter, in *Ironmongery or Joinery*. A flat iron bar which swivels or swings on a central bolt secured to the back of one of the flaps or leaves of the shutter, at one end to the side of the shutter-box, and secured at the other end by going into a slip-hook at the opposite shutter-box; and thus pressing against the side of the shutters nearest the room, prevent all access to it from the outside through the window. Syn. Fr. *Barre de fermeture* (closing)—pron.

barr day fare-may-tooohr; Ger. *die Stangenfensterladen* (from *Stange*, a bar or stake, *Laden*, a shutter)—pron. dee stang-en-fenn-sterr-lahd-dane.

Bar-tamping, in *Masonry and Quarrying*. A long iron bar with a steel chisel or cutting point, used to bore or sink holes in the rocks of foundations, in benching out, or in quarrying, in which the blasting powder or substance, such as nitroglycerine, is put. Syn. Fr. *Refouleur*—pron. reh-fou-lay (to drive back), or *Barroir*—pron. barr-wah; *Refouloir* is a rammer—pron. ruf-fool-war or-wah; Ger. *Ladestopfer*—pron. lah-deh-stop-ferr (from *laden*, to load, and *Stopfer*, a stopper, a cork—pron. lah-den, stop-ferr).

Base, in *Architecture*. The lower part of an architectural Classical order or column, or of a pillar in the Gothic or Pointed style—the lower part of a pilaster. The base is a good indication of the characteristic of the style or order. The Grecian Doric, however, has no base at all. Der. From the Greek *basis*, and this from *bainein*, to step on. Syn. Fr. *Base*—pron. baahs; Ger. *die Basis* pron. dee bahs-ees.

Basement, in *Architecture*. The lowest floor in a building. In ordinary domestic buildings the term “cellar” is used to denote this part of a house—as the apartments in it are either wholly or partially below the ground level. In public buildings the term “basement” is applied to the lower floor whether the apartment is above or below the ground level; but which serves the purpose of a base supporting the main structure, this base forming a part of the design. Syn. Fr. *Soubasement*—pron. soo-baahs-mang or -magh (*sous*—pron. soo, under) basement; Ger. *der Keller* (the cellar).

Base Moulding, in *Masonry*. Mouldings more or less ornate, and projecting from the face of the superstructure; placed immediately above the base or plinth of the structure—the upper part or moulding terminating generally at the level of the ground floor of an ordinary building. Syn. Fr. *Moulure de basement* (*moulure*, a moulding)—pron. mool-oore day bahs-mangh; Ger. *Basissimswerk* (*Basis*, base, *Simswerk*, moulding, and this from *Sims*, a cornice, *Werk*, work)—pron. bah-seece-sims-vaik.

Basilica in *Architecture*. This term, used by the Romans to denote their halls of justice, was after the Christian era applied very generally and for long to churches—many of the early churches being simply the halls of justice converted to ecclesiastical purposes—the heathen temples for obvious reasons being deemed unfitted for sacred worship. As new churches were built, the plan of the basilica was adopted for them, hence the name. Eng. pron. bah-ee-ly-kah. Syn. Fr. *Basilique*—pron. bah-zeel-eek; Ger. *Basilica*—pron. bah-zeel-eek-ah.

Bass, in *Bricklaying and Slating* The trough in which mortar is kept in tiling and other work.

Bass, in *Carpentry*. The straw or chip-like bag, open at the upper side, and having two handles to close it, in which the carpenter carries his tools. The name is a corruption of Bast (which see), being the material of which the bag is made. Bass is also Scotticé for a door-mat—mats being at one time generally made of bast.

Basso Relievo. See Alto and Demi Relievo.

Bast (see Bass), in *Gardening*. A vegetable material made from the inside bark of a tree, straw or ribbon-like in form, flexible and strong; used for tying up flowers and vegetables in bunches, or to stakes. It is sometimes called bass. Syn. Fr. *Corde ou matie de tilleul* (*corde*, band, *matte*, mat, *tilleul*, the linden tree)—bast made from the bark of this tree—pron. kord o matt deh til-yuel; also *Ecorce* (bark of a tree)—pron. eh-korss; Ger. *der Bast* (inside bark, chip).

Bastard Stucco, in *Plastering*. Plaster in three coats—the first being the “roughing” or rendering coat—the second the “floating,” as to rendered stucco—and third the “finishing,” in which a little hair is mixed in addition to the sand.

Bat, in *Bricklaying*. A part of a brick, a half or three-quarters—generally half—cut transversely or across its breadth. For a half brick-bat, Syn. Fr. *Moitié d'une brique coupée en travers* (*moitié*, the half of a thing, *coupée* [from *couper*, to cut], cut, *travers*, athwart or crosswise)—pron. moh-at-yai duun breek koo-pay ang trah-vare; Ger. *Halbe* (half) *Kreuzweise* (crosswise)—from *kreuz*, across, *Weise*, way or mode—*gebrochene* (broken or cut) *Ziegel* (brick)—pron. hal-beh krootz-vize-eh geh-brochen-eh tzee-gell.

Bath Room, in *Domestic Architecture*. The small room or closet in which the bath and lavatory are placed. Syn. Fr. *Salle* (a room or hall) *de bain* (a bath)—pron. sahl deh behng; Ger. *das Badezimmer* (*Bade*, a bath, *Zimmer*, a chamber)—pron. bah-deh-tzim-err.

Batten, in *Carpentry*. A piece of wood of small section, and of various lengths. Syn. Fr. *Volige* (a small board)—pron. voll-eej; Ger. *die dünne* (thin) *schmale* (narrow, small) *Latte* (lath)—pron. dee duenn-neh shmahl-eh latt-eh.

Battens, in *Carpentry*. Timber or planks which measure from two up to seven inches in width, and from half an inch to an inch and a half in thickness. Syn. Fr. *Volige*, a thin board—pron. voll-eej; Ger. *schmales Brett* (from *schmal*, small or narrow, *Brett*, a board)—pron. shmahl-less-brett.

Batter, in *Masonry or Brickwork*. The sloping line given to the face of a wall, as that of a retaining wall in a deep cutting,

and which gives a less width at top than at bottom; or a retaining wall, or a chimney stalk which is smaller at top than at bottom. The wall, etc., is said to “have so much batter.” In some public buildings the walls “batter” or slope inwards; and this is met with in the basements of certain modifications of Classical styles. Syn. Fr. *Pente* or *Talus*, a slope—pron. pahngt, tah-loo; Ger. *Böschung*—pron. boesch-oong (from *böschchen*, to slope).

Batterdeau, in *Masonry*. A framework or case of timber piles, enclosing a space in a water-way, from which the water is pumped out, affording space for building the foundations and substructure of piers of a bridge, etc. (See “Cofferdam,” which is another and more generally used name for this.) Syn. Fr. *Batardeau*—pron. bah-tar-doe (from *battre*, to beat, and *d'eau*, of water)—literally “a beater back of the water”; Ger. *Damm*, a dike or dam (from *dammen* [dahm-men], to confine, to keep back, to dam up).

Battlement, in *Masonry*. An arrangement of the parapet or final course of a building, in which the upper course is interrupted in continuity at regular intervals, giving indented or free-spaced parts. Syn. Fr. *Crénauz*—pron. kray-no (from *crenaux*, intervals between solid parts)—our English word “crenulated” comes from this; or *Mulets*; Ger. *Zinnen*—pron. tzin-nen (from *Zinne* [tze-nay], a pinnacle).

Bauk, or **Bawk**, in *Carpentry*. Syn. for Balk (which see).

Bay, in *Carpentry*. Space between two trusses of a roof (see Truss and Roof). The term is also used in *Mill Architecture* to denote the floor space between the walls and the side columns, and between the central columns, and supporting a roof or floor above. The term is also used to denote the free or light spaces between the sash bars or mullions of a window. “Compartment” is synonymous with bay in the above definitions. Syn. Fr. *Baye* or *Travée*—pron. bah-ee, trah-vay; Ger. *Abtheilung*—pron. ahb-tile-oong (from *ab*, from, and *Theil*, a part or portion).

Bay, in *Plastering*. A rib or projecting part in plaster, formed between the screeds (which see) to regulate the floating line.

Bay Window, in *Architecture*. A window projecting from the face of a wall, the plan of which is either part of an octagon or hexagon, and the base of which rises from the ground level. The sides of a bay window are always straight-lined and not circular. (See Bow Window and Oriel Window.) Syn. Fr. *Fenêtre* (window) *en saillie* (projecting)—pron. fay-nay-ter ang sah-ee-aye; Ger. *Bogenfenster*—pron. boh-genn-fen-sterr (from *Bogen*, an arch or bow, *Fenster*, a window).

Bead, in *Masonry and Joinery*. A small

moulding with rounded edge or surface, generally semicircular in section. Syn. Fr. *Baguette*—pron. bah-gett; Ger. *Rundstab* (rund, round, and *Stab*, a rod or stick).

Beam, in Carpentry. A piece of timber, usually of large scantling, or dimensions of greater depth or width than breadth or thickness, placed horizontally to bear weights or pressures or resist strains. When used to resist tension it is called a "tie beam"; when it resists compression it is a "collar beam" or a "post" or "pillar"; when used to bear a weight or resist cross pressure it is a "brest-summer" (all of which see—also Roof, Camber). A very large beam is generally termed a "girder" (see Floor). Syn. Fr. *Poutre*—pron. pooh-ter; Ger. *Balken*—pron. bahll-kenn.

Beam Filling, in Masonry and Bricklaying. Filling-in the spaces between beams, rafters, etc., with stones or bricks. Syn. Fr. *Hourder*, to work roughly or coarsely—pron. hoor-day; Ger. *Austakeln* (aus, out, and *takeln*, to rig out), or *Rauhsteinwerk* (rauh, rough, *Stein*, stone, and *Werk*, work)—pron. owse-tahck-eln, row-stine-vairk.

Beam, Principal, in Carpentry. The largest beam in a framework. Syn. Fr. *Poutre maitresse* (literally "the mistress," or, as we less gallantly would say, "the master" beam)—pron. pooh-ter may-tress; Ger. *der Hauptbalken* (the "head beam")—pron. howpt-balk-en; also *der Bindebalken* (i.e. the binding-beam)—pron. bin-deh-balk-en.

Bearer, in Carpentry. A timber support to carry weights or parts of a building. Syn. Fr. *Support*—pron. suh-pohr (from *supporter*, to bear or prop up—pron. suh-por-tay); Ger. *Träger*—pron. tray-gerr (from *tragen*, to carry, keep up—pron. trah-genn).

Bearing, in Carpentry. The clear space between the supports of a beam—the span or width of the opening or void, as of a window or door space. The term is also generally applied to the distance or length of the beam beyond the line or face of support, or extent of the beam surface which actually lies on or is supported by the wall, which latter becomes then the "bearing wall," the timber resting on it the bearing. Thus, in the case of an opening four feet wide, of which the length of the beam or lintel (which see) is four feet eight inches, the "bearing" or bearing surface at each side of the beam would be four inches, and the length of opening, four feet, would also be termed the bearing or span. Properly the term applies to the extent or length of that part of the beam which actually rests on the supporting wall. Thus, in the above example, the beam would be said to have "a bearing of four inches." Syn. Fr. *Portée*—pron. pohr-tay (from *porter*, to carry or bear—pron. pohr-tay), or *Gisement*, a bearing

or layer—pron. gjeez-mang (from *gisant*, lying—pron. gjeez-angt); Ger. *Stützpunkte*—pron. stuetz-poong-teh (from *stützen*, to prop or support.)

Bed, in Masonry and Bricklaying. The side or face of a stone or brick on which it lies in the course of the wall—the under side when placed horizontally (see Brick). Syn. Fr. *Lit*, a bed or couch—pron. lee; Ger. *Lage* (a position or site)—pron. lah-geh, or *Schicht*—pron. sheecht. Bed may also apply to side and upper faces of a stone.

Bed, in Slatting. The lower surface or side of a slate.

Bedding, in Masonry and Bricklaying. The building-in or fixing of the timber work used in a building, such as the door and sash frames of the joiner, wood-bricks, beams, lintels, etc., with lime and hair mortar. "Well bedded-in" refers to the work done or to be done in this, in good construction.

Bed Mould, in Masonry. That part of a cornice or upper member of a structure which lies immediately below the lowest part of the cornice or the corona.

Bed of Mortar, in Masonry and Brickwork. The layer of mortar spread over the surface of a stone or part of the course of bricks, in which to place the next stone in the course or the next course of bricks. Syn. Fr. *Chape*—pron. shap; Ger. *dass Mörtelbett* (the mortar bed)—pron. dass moer-tell-bet.

Bed Room, in Domestic Architecture. Sleeping room. Syn. Fr. *Chambre à coucher*—pron. shahm-berr ah koosh-eh (from *chambre*, a room, and *coucher*, to sleep); Ger. *Schlafzimmer*—pron. shlahff-tzim-er (from *Schlaf*, sleep, *Zimmer*, a chamber or room).

Belfry, in Architecture. The tower of a church in which the bells are hung; also applied to the room below from which the bell ropes are worked. Syn. Fr. *Belfroi*—pron. bay-frwah; Ger. *Glockenthurm*—pron. glok-ken-toorm (from *Glocke*, a bell or clock, and *Thurm*, a tower, turret, or steeple).

Bell, in Masonry and Joinery. The body of the capital of a column in the Corinthian or Composite style, on which the foliage or ornamentation is fixed and by which it is surrounded. The term is applied from the bell shape—inverted—of the body.

Bell Pull, in Joinery or House Fitting. The knob or handle fixed in the wall at a convenient part of the room, by which the bell to bring attendance is pulled or sounded. Syn. Fr. *Cordon* (cord or wire) *de sonnette* (little bell)—pron. kohr-dong deh so-nett; Ger. *der Klingelzug* (from *Klingel*, a small bell, *Zug*, a pull or tug)—pron. kling-ell-tzoo.

Bell Turret, in Architecture. The small turret, as in schools, stables, etc., in which a bell is hung. Syn. Fr. *Clocher*—pron. klosh-eh (from *cloche*—pron. closh, a bell);

Ger. (see Belfry), or *Dachreiter*—pron. dach-rite-er (from *Dach*, a roof, and *Reiter*, a rider—literally “a roof rider”).

Belvidere, in *Architecture*. A tower or campanile in which a room or an apartment is made, and from which a wider view of the landscape is obtained than from rooms in the lower stories or floors. In domestic architecture the smoking room is placed in the belvedere. Eng. pron. bell-vee-dear—properly bell-vee-deary. *Der.* From the Latin words *bellus*, fine or well, and *video*, I see—literally “a place for fine seeing, a good look-out.” Syn. Fr. *Belvédère*—pron. bell-vay-dare; Ger. *das Belvedere*—pron. bell-vay-dare.

Bench, in *Joinery*. The table at which the work of preparing the timber, making the joints, etc., is done. Syn. Fr. *Banc*—pron. bahnk; Ger. *Bank*.

Bench Mark. Pieces or rods of timber set in the ground to denote heights and levels of parts benched-out, etc. Syn. Fr. *Repère*, a mark—pron. ray-pare; Ger. *Merkzeichen*—pron. merk-tzye-ken (from *Merk*, a mark, and *Zeichen*, a sign).

Bench out, in *Excavating Work*. To cut the face or bed of a trench or foundation in the form of steps. Syn. Fr. *Faire une tranchée à gradin* (from *faire*, to make, *tranchée*, a trench, *gradins*, steps, level or flat surfaces raised one above another)—pron. fair-oon or -uhn trang-shay ah grah-dang.

Beton, in *Masonry*. A species of concrete—the terms in French masonry being often used as synonymous—in which broken stone, gravel, and the like are bound together, forming stone-like masses or blocks, with hydraulic mortar or artificial cement—as puzzelano, not Portland cement (see Concrete). Syn. Fr. *Béton*—pron. beh-tong; Ger. *Steinmörtel*—pron. stine-moerr-tell (from *Stein*, a stone, *Mörtel*, mortar).

Bevel, in *Carpentry and Masonry Tools and Appliances*. A species of square, one leg of which is jointed at one end to the termination of the other leg, by which the one can be set at any angle, or bevel, to the other. The term also is applied to a fixed or permanent arrangement of pieces of timber set or fixed to any desired angle, to lay off or set off parts of structures with angular or bevelled sides or surfaces. *Der.* From the French synonym *bureau*—pron. buh- or boo-voh. In view of what we have said in the Dissertation as to some of our technical terms being given originally as a species of nickname or in joke, the term *sauterelle*, which is the French word for “grasshopper,” may be cited as an example. No doubt the crooked or bent legs of this insect suggested the name for bevel. Also *Sauterelle* (a jointed rule)—from *sauter*, to leap (spring) back—pron. soh-ter-ell; also *équerre pliante* (square pliant, or capable of

being bent)—pron. eh-kerr or -kare plee-angt. Ger. syn. *das Schrägmass*—pron. dass schraigg-mass (from *schrag*, oblique or sloping, and *Mass*, size or measure, proportion).

Bevel Edge, in *Tools*, etc. A sloping or inclined edge. Syn. Fr. *en Biseau*—pron. ang bee-zoh; Ger. *Schiefkantig* (from *Schief*, obliquity, and *kantig*, angular—pron. sheef-kan-tig).

Bevelled off, in *Masonry and Joinery*. Denotes part of the surface as sloping or oblique. Synonymous with Chamfer (which see), and also with the expression “taking off the arris” (see Arris)—that is, cutting off the corner so as to expose a flat surface. It is also synonymous with “splayed,” as in Brickwork, a splayed brick being one with a sloping side. Thus for bevelled board or plank the Syn. Fr. is *Planche en biais*—pron. plahn-nch ang bee-yea; Ger. *Gehrungsbrett* (*gehrung*, sloping—from *gehen* [gay-ren], to slope or bevel—and *Brett*, a board)—pron. geh-roong-brett.

Bevel off, *To*, in *Metal Work*, etc. To cut or plane the corner or arris (see Arris) of a piece of metal. Syn. Fr. *Lever un biseau* (*lever*, to lift or take away)—pron. lay-vay ung bee-zo; Ger. (in metal work) *Anschleifen*, to file or grind to an edge or on the slope—pron. ann-shly-fenn.

Billet Moulding, in *Architecture*. A peculiarity distinctive of the Norman style. It derives its name from the ornament resembling a billet or piece of cylindrical wood. The billets are placed in the concave part of the moulding in rows, an interval or space shorter than the length of the billet being between each. Syn. Fr. *Billette*—pron. beel-yette; Ger. *Billet*—pron. beel-ett.

Billiard Room, in *Domestic Architecture*. The apartment set aside for the billiard-table in large houses, mansions, etc. Syn. for billiard-table, Fr. *Billard*—pron. beel-lard; Ger. *die Billiardtafel* (*Billiard*, and *Tafel*, a table)—pron. bill-yard-tah-fell; Syn. for billiard-room, Fr. *Salle de billard*; Ger. *Billiardzimmer*.

Binders, or Binding Joists, in *Carpentry*. Cross or transverse beams in a floor (see Floor) which support on their upper edges the “bridging joists” above, and to the lower edges of which the “ceiling joists” are notched or secured. Syn. Fr. *Poutres*—pron. pooh-ter, also *Solive*—pron. so-leave; Ger. *Bindebalken* (*binden*, binding, and *Balk*, a beam)—pron. bin-deh-ball-ken.

Binding Rafters, in *Carpentry*. Horizontal beams or members of a roof (see Roof), notched or secured to the upper sides or edges of rafters and connecting them together and keeping them rigidly apart. Their chief office is to give a bearing or support to the common rafters, which are spaced between the principal ones. Binding rafters are more generally known as

"Purlins." Syn. Fr. (for purlins) *Pannes* or *Vernes*—pron. pann, vain; also *Chevron*—pron. shev-rong; Ger. *Bundesparren* (*Sparren*, da spar, rafter—*Sparrenholz* is timber for rafters)—pron. spar-ren-holtz.

Birch. One of our forest trees yielding the timber so called, used for constructive purposes largely by "The Cabinet-Maker." Syn. Fr. *Bouleau*—pron. bool-oh; Ger. (the tree) *die Birke*—pron. dee beer-keh; for the wood or timber of the tree, *das Birkenholz* (*Birken* from *Birke*, *Holz*, wood)—pron. dass beer-ken-holtz.

Bird's Eye View, in Drawing. A species of perspective—in the "flat" as it might be termed—used on architectural or building plans or designs, but rarely in mechanical or engineering drawings, to give a general view of the building seen as it will be when constructed. It is so called from its resemblance to the view which a bird flying over the building is supposed to have. Syn. Fr. *à Vue* (a sight) *d'oiseau* (a bird)—pron. ah vuh dwahz-oh; also *Perspectif à vol* (flight or flying, from *voler* [vol-lay], to fly) *d'oiseau*—pron. pare-oh pair-speck-teef ah voll-dwahz-oh; Ger. *die Vogelschau* (*Vogel*, a bird, *Schau*, a view or look, from *schauen*, to show)—pron. dee fo-gel-shough (ou as in our word now).

Bird's Mouth, in Carpentry. A joint in which a part is cut out from the inner face or angle of the end of one piece of timber to fit on to or to receive the outer face or angle of another piece (see Joints).

Block and Tackle, or Block and Pulley. The blocks containing a set of pulleys over which the hoisting rope or chain is passed in order to increase lifting power, or obtain what is called a "purchase"; used in connection with cranes, crabs, and shears (which see). Syn. Fr. *Poulie* (pulley) *mouflée* (tackled or connected)—pron. pool-ee moo-flay; Ger. *der Kolbenzug* (*Kolben*, a pulley or block, and *Zug*, drag, pull, draught)—pron. kol-benn-tzoog; also *das Zugwerk* (literally "drag or draught work")—pron. tzoog-vairk.

Blocking Course, in Masonry. The term blocking course generally refers to the course of plain-surfaced stone—without mouldings—which surmounts or crowns the cornice of a building. The plain course of stonework which projects from the face of upper wall, and which forms the base or plinth of the building, is, however, also so called. The base moulding (which see) is immediately above the blocking course, and where the base moulding is absent the upper edge of the blocking course is often splayed, bevelled, or chamfered off towards the face of wall.

Blockings or Blocks, in Joinery. Pieces of wood glued to the interior angle or the inner face of the corner formed by two pieces joining or mitred at an angle.

Block of Stone. Syn. Fr. *Dé en pierre*—pron. day ang pee-air; Ger. *der Block von Stein*—pron. derr block von sty-en.

Block of Wood. Syn. Fr. *Bloc de bois* or *Moufle*—pron. block de bwah, moo-fell; Ger. *der Block*.

Block Plan. In a "set" of drawings the plan is so called which shows in outline only the position of the building in relation to the plot on which it is to be erected, or in relation to other buildings on the same plot. For example, the relative position of a mansion and the outbuildings, as stable, etc., etc., garden and garden structures (see Ground Plan, also Plan).

Board, in Joinery. When a balk or log of timber is sawn longitudinally into a number of strips or leaves, each leaf or separate part is known by this name. Eng. syn. *Plank*; Syn. Fr. *Planche*—pron. plahnch; Ger. *das Brett* or *die Planke*—pron. brett, plank-eh.

Boarding, Rough, in Joinery. This term is applied to the boards or planks in the rough condition in which they come from the saw-mill or machine, and before they are dressed—that is, planed and finished for "finished" work—as in flooring. Syn. Fr. *Planche brut* (from *planche*, a plank, *brut*, rough, rude)—pron. plahnch broot; Ger. *die rauhe* (rough, coarse) *Dielung* (from *Diele*, a deal board or plank)—pron. dee ruh-eh dee-luhng.

Boasting, or To Boast, in Masonry.—In ashlar work the first chiselling or tooling of the surface of the block of stone is sometimes thus termed, otherwise "rough hewn," preparatory to being rubbed or finished with a smooth surface. Syn. Fr. *Ebaucher*—pron. eh-bo-shay (from *ébauche*—pron. eh-boash, a rough draft, or from *ébauchoir*—pron. eh-boh-shwair, a large chisel). The operation of rough-hewing or boasting is expressed thus in French: *Taillant* (cutting) *la pierre* (the stone) *avec* (with) *l'honguette* (the chisel or cutting tool) *et la maillet* (mallet or wooden hammer)—pron. tahl-yeh lah pee-air ah-veck long-gate eh lah mahl-yeh; Ger. *Roh* (rough, coarse) *meisseln* (to cut, carve, or chisel—from *Meisel*, a chisel)—pron. roh mice-eln; also *den Stein* (stone) *mit dem Schlägel* (a mallet) *machen*—that is, to make or finish the stonework with the mallet—pron. dane stine mit dem shlay-gel machen.

Bolction Moulding, in Joinery. Any moulding projecting above the surface is so called.

Bolster Pieces, in Carpentry. The cross-pieces which are laid on the top of the curved surface of centre (see Centre) in which the bricks or stone forming the arch are laid. Syn. Fr. *Madrier* or *Couchis*—pron. mah-dree-eh, koo-shee; Ger. *Schallbrett* (from *Schall*, a cover)—pron. shall-en-brett.

Bolt, in Carpentry. The square or round

iron bar used in bolting scarfed and built beams together. A square flat head is provided at one end, projecting beyond the central bar, and so affords a bearing surface all round. The other end is screwed to receive the nut (which see) which is generally used to secure the bolt in its place. In some cases the bolt is secured by a flat pin or key, which passes through a "slot" or rectangular hole near the extremity of the bolt. Syn. Fr. *Boulon*—pron. booh-long; also *Cheville en fer* (*cheville*, a peg, and *fer*, iron)—pron. shay-veel ah ferr; Ger. *der Bolzen* (a bolt or screw)—pron. boll-tsen. The term "*Bolt and Nut*" is employed when the two are in conjunction. The Syn. Fr. is *Boulon* (bolt) *à écrou* (a nut, which see)—pron. booh-long ah eh-kroo; Ger. *der Schraubenbolzen* (from *Schraube*, a screw: a female screw or nut is *Schraubenmutter*—literally a "screw mother")—pron. derr shrough-benn-boll-tsen.

Bolted, in *Carpentry*. When two pieces or members of a frame are secured together by screw bolts and nuts this term is applied. Syn. Fr. *Boulonnée*—pron. bool-on-nay; Ger. *Bolzenbefestiger* (*Bolzen*, a bolt, and *Befestiger*, fastener)—pron. bohlts-en-beh-fes-teh-gerr.

Bond, in *Masonry and Bricklaying*. The term used to denote the methods of arranging the separate blocks or stones or bricks in a wall, so that they will bind or bond together in order to form a solid wall; one part being closely connected with another, forming a continuous mass. Syn. Fr. *Liaison*—pron. lee-ay-song; Ger. *Mauerverband*—pron. mow-er-ferr-bant.

Bond, in *Slating*. The distance between the nail-hole of the lower slate and the lower edge of the upper slate.

Bond Stones or Bonders, in *Masonry*. Stones placed at intervals transversely in a wall, or in the thickness, so that they bind the stones at face and those at back together. They do not always reach right across from front to back of wall, the ends showing at either face. When they do they are termed "through stones" or perpend or perpent stones. Syn. Fr. *Bouisse*—pron. boot-eece; Ger. *Bindesteine*—pron. bin-deh-stine-eh. Syn. for "through" or "perpend" bonding stones, Fr. *Pierres à deux paremens*—pron. pee-air ah duuh parr-mangs (*parement*, a facing or face); Ger. *Durchbinder*—pron. durch-bin-derr (from *durch*, through, and *Binder*, a bond or binder).

Bond Timber, in *Carpentry and Joinery*. Pieces of wood laid horizontally on and built into walls, in order to tie or bind them together and strengthen them. Syn. Fr. *Linteau*, or *Enchevêtreure*—pron. laing-toe, or ah-shev-aye-troor; Ger. *Bindeholz*—pron. bin-day-olts.

Borders, as in *Gardening*. The narrow strips or parts of soil running along the

insides of walks or outside a lawn, and which are filled in with a variety of flowers, bedding-out plants, etc. Syn. Fr. *Bordure* (from *bord* [bord], the edge or a fringe)—pron. borr-duur; Ger. *die Einfassung* (bordering, enclosure—from *ein-fassen*, to trim, to edge)—pron. dee ine-fass-oong.

Bore, in *Carpentry*, as with an auger, or in *Joinery* as with brace-and-bit or gimlet (which see). Syn. Fr. *Vriller*—pron. vree-yea (from *vrille*, a gimlet, pron. vree); Ger. *Durchbohren* (*durch*, through, and *bohren*, to bore)—pron. doorch-bore-enn. To bore for a mortice the syn. in Fr. is *tortiller*—pron. torr-tee-yea; Ger. *ein Zapfenlochbohren* (*Zapfen*, a tenon or peg, *Loch*, a hole—literally "the tenon hole")—pron. tzap-fenn-loch-bore-enn.

Boss, in *Architecture*. A projecting mass, round or cup-inverted-like in form, but with its convex surface ornamented with conventional foliage. This ornament is employed at points where projecting parts, as ribs in roofs or vaults, intervene. Where a projecting convex mass or rounded knob terminates a part, such as at the termination of a drip-stone, it is also called by this name. Syn. Fr. *Bosette* or *Bosse*—pron. boh-set, boss; Ger. *Buckel*—pron. book-ell.

Bottom Rail, in *Joinery*. The lowest cross or transverse board or piece of a door—that nearest the floor or ground (see Door).

Bow Window, in *Architecture*. A window which projects from the face of a wall, but starting from ground level—that is, lighting an apartment on the ground floor of a house—the plan of which is semicircular, or the segment of a circle. Syn. Fr. *Fenêtre circulaire* (a circular or segmental window)—pron. fay-nett-terseer-kuh-lair; Ger. *Bogenfenster* (*Bogen*, an arch, *Fenster*, a window)—pron. bogen-fenn-ster; or *zirkelrunde Fenster* (*Zirkel*, a circle, and *rund*, round—that is, circular or segmental).

Boxings, in *Joinery*. The cases or receptacles or recesses made at the sides of window-frames, into which the shutters go when folded back (see Window).

Braces, in *Carpentry*. Members of timber framing, as a roof truss, the office of which is to prop up or support other pieces, as rafters, etc. They are always inclined to the horizon, or oblique. They are frequently called struts. Syn. Fr. *Contrefiches*—pron. congter-feesh (*contre*, against, and *fiches*, from *ficher* [fee-shay], to drive in—our word "fix" comes from this); Ger. *Strebänder*—pron. streb-beh-ben-derr (*Strebe*, a prop or post or stay, from *streben*, to strive, to struggle against, to bear up).

Brace-and-Bit, in *Joinery*. A tool for boring holes in wood. It consists of a central part, shaped like a crank or the letter E, the shank of the E being provided with a

turned handle of wood. The upper part has a wooden knob, in the centre of which the stud of the crooked part revolves as the brace is turned round by the handle. The lower part of the brace or *Écarré* carries the boring tool called the "bit," secured in the eye of the brace by a thumb or pinching-screw. In using this the pressure on the bit is obtained by the workman pressing or leaning upon the knob at the upper part, while he causes the brace to revolve by turning the handle in a circular path. Syn. Fr. *Drille*—pron. dree-yeh; also *Vilebrequin*—pron. veel-breck-ang; Ger. *der Brustbohrer* (from *Brust*, the breast or chest, meaning that it is a borer (*Bohrer*) to be used by pressing upon it with the breast or chest of the workman)—pron. broost-bore-err; also *der Traubenbohrer* (from *Traube* [trow-bay], a bunch or cluster, meaning that the bits in the boring tools, though of various sizes—that is, giving holes of various diameters—can all be used by the same brace, a cluster or bunch of bits being thus available)—pron. trow-benn-bore-er. Also *Drehbohrer* (from *drehen*, to twist round, to cause to revolve—literally "a revolving borer," in contradistinction to the older form of brace or bit borer—the bow drill or drill bow—the bit or boring tool of which moved round only part of a circle and was brought back again, with an alternate movement in place of continuous, as in the revolving bit, the *Drehbohrer*)—pron. dreh-bore-err.

Brace of a Partition, in Carpentry. The angular strut supporting the quarters or upright pieces. Syn. Fr. *Renfort* or *Décharge*—pron. rang-for, day-sharhj; Ger. *Kreuzstrebe* (*Kreutz*, a cross, *Strebe*, a post or stay)—pron. kroit-z-streh-beh.

Bracket, in Architecture. An ornamental member projecting from the surface of a wall, the upper part of which is flat, affording a table or space in which to place busts, statuettes, lamps, etc. Syn. Fr. *Consol* or *Tasseau*—pron. cong-soll, tass-oh; Ger. *Klammer* (from *klammern*, to cling, to clasp)—pron. clam-mer.

Brad, in Joinery. A small nail without a flat head, but having in place of it a small part projecting at right angles. The brad is driven into the wood, as with a steel punch, so that this part is below the surface, and the space left is filled up with putty, this concealing the nail.

Brass, in Materials. A metal much used in making the fittings used in joinery and internal house and church work, etc. It is an alloy composed of copper and zinc, the proportions varying according to the quality required, generally sixteen parts of copper to nine of zinc. Syn. Fr. *Airain*—pron. air-ainhj; Ger. *Messing*—pron. mess-ing; bronze is *Erz*—pron. ertz.

Break-in, in Bricklaying. Cutting out

parts in brick walls, in order to form apertures for the insertion of timbers.

Breaking-down, in Carpentry. Sawing a log or balk of timber into leaves or boards (which see).

Breaking Ground, in Building. A term used to indicate that the work is commenced by opening up the foundation trenches, the position of which has been previously marked out on the site. To break ground is to dig the foundations. Syn. Fr. *Ouvrir les tranches*—from *ouvrir* (oohv-reer) to open, and *tranche* (trahneh), a slice, *tranchée*, trench (trang-zhay); Ger. *den Grund brechen* (from *Grund*, earth or ground, and *brechen*, to break, or break up)—pron. dane ground-brech-en.

Breaking Joint, in Masonry and Bricklaying. So disposing stones or bricks in the building of a wall that the vertical joints of those in an upper course (see Course) will fall upon the solid parts of the bricks or stones below. That is, no joints in any one course shall coincide with or be in the same line with the joints of the course immediately above or that below it.

Breakwater, in Masonry. As its name imports, a structure built in the sea to protect the mouth of a harbour, or of a ship roadstead, from the violence of the waves proceeding landward. Concrete blocks are now largely used in the construction of breakwaters, in place of the large stones employed universally at one time. Syn. Fr. *Jetée Briselames* (from *briser*—pron. breeze-eh, to break, and *lame*, a blade or sheet)—pron. sjhett-eh breeze-lahm; also *Brise d'eau* (*eau*, water)—pron. breeze-doh; Ger. *Wellenbrecher*, *Hafendamm*—pron. vell-en-brech-err, haht-en-dam.

Bressummer or Brestsummer, in Masonry and Bricklaying. A timber beam spanning or stretching over an opening or void in a wall, the ends having a certain bearing thereon, its office being to support a weight, as brickwork, above it.

Brick, in Bricklaying. The solid blocks of burnt clay used in the building of walls. They are now made of various sizes and forms, but the dimensions of those used in general work are the same as those which the Excise decided on in the days when bricks had a heavy duty imposed upon them. Those dimensions, termed "standard," are: length 9 inches—breadth or width $4\frac{1}{2}$ inches—thickness $3\frac{1}{2}$ inches. These sizes lend themselves with great ease, in the combination of bricks in building, to bond and to the breaking of joint. Der. From Icelandic *brike*. Syn. Fr. *Brique*—pron. breek; Ger. *Ziegelstein* (*Ziegel*, a brick or tile, and *Stein*, a stone), literally "brick stone"—pron. tzeeggell-sty-enn.

Brick, Air, in Bricklaying. A hollow brick, or brick provided with a series of

apertures, often arranged in some special pattern or design, passing through the breadth of the brick, and which is placed at intervals in a course immediately below the level of the flooring joists, to which a supply of air is thus provided to prevent the dry rot attacking the timber.

Brick, Hollow, in Bricklaying. A brick is so called which has a cavity or hollow in its interior. The form of the cavity varies in different bricks. In some it is circular, two or more circular holes either traversing through the length or across the breadth of the brick. In some the cavities are rectangular, generally traversing the brick length-wise. Bricks thus made are lighter and better capable of resisting the damp or passage of wet through the brick than when solid. Syn. Fr. *Brique creuse*—pron. breek kruuze or kruuze (from *creux*—pron. kruh, hollow, empty, and this from the verb *creuser*—pron. kreuh-zay, to dig out, to make a hollow place); Ger. *der Ziegelholz* (*Ziegel*, a brick, and *Holz*, from *Hohl*, a hollow, and this from *höhlen*, to dig out or excavate); also *Hohlziegel*—pron. hohl-tzee-gel.

Brick on Bed, in Bricklaying. In ordinary wall work the bricks of all the courses are laid on the flat or broadest side or "bed,"—hence the term. Syn. Fr. *Brique posée de plat* (*posée*, placed, *plat*, flat)—pron. breek-pose- or pozz-eh day plah or -plaw; Ger. *der flachgelegte Ziegel* (*flach*, flat, *gelegte*, placed, disposed, situated)—pron. dare flah-geh-laig-teh tzee-gel.

Brick on Edge. Laid on the side or narrow edge. Syn. Fr. *Brique de champ* (*champ*, a field—meaning by this that the bricks are placed in the same way as they are laid on the surface of the brickfield to dry in the sun and air)—pron. breek deh chahng; Ger. *der Aufrecht gestellte Ziegel* (from *aufrecht*, upright or erect, *Gestelle*, a frame or base)—pron. ow-frecht geh-stell-tay tzee-gel.

Bricklayer or Bricksetter. The workman employed in brickwork. Syn. Fr. *Briqueleur*—pron. breek-turr; Ger. *Maurer*—pron. mow-rerr.

Bricklaying or Brickwork. The art of setting bricks in proper "bond" or disposition in various thicknesses and forms or arrangements of walls. Syn. Fr. *Briqueterie* or *Ouvrage en Briques*—pron. breek-tajh, oov-rajh ang breek; Ger. *Mauerwerk mit Ziegelstein*—pron. mough-err-vairk mit tzee-gel-sty-en.

Brick, Splayed, in Bricklaying. A brick with its corner or arris cut off, usually in the direction of the length of the brick—thus giving a bevelled or sloping edge or side (see Bevel). Syn. Fr. *Brique ébrassée* (from *ébrassement* [eh-brass-mang] a splay, and this from *ébrasser* [eh-brazh-eh], to

splay, slope, or bevel)—pron. breek eh-brass-eh; Ger. *Ziegelschrägen*—pron. tzee-gel-schraigg-tenn; also *die ausgeschragte Ziegel* (from *aus*, out of, and *schräg*, sloping)—pron. dee ouss-gay-shraigg-teh tzee-gel.

Brick, Wood, in Bricklaying. A piece of wood the dimensions of a brick— $9 \times 4\frac{1}{2} \times 3\frac{1}{2}$ in.—built into the brick wall at points where timber framing, as door casings and the like, is to be put up; the wood bricks afford the necessary nail-hold. Syn. Fr. *Brique en bois*—pron. breek-ahng-bwah (*bois*, wood); Ger. *Holzziegel* or *Ziegelholz* (*Holz*, wood)—pron. tzee-gell-holts.

Bridge, in Masonry, Bricklaying, and Carpentry. A structure by which access can be had from one side of a river or wide opening to the other: the structure by which a space is spanned. Der. From Old English *brycg* or Icelandic *brygginn*. Syn. Fr. *Pont*—pron. pong; Ger. *Brücke*—pron. bruck-keh. Bridges are of various kinds or forms, and are constructed of different kinds of materials. A "Stone Bridge" in French is termed *Pont de pierre*; in German, *Brücke von Stein*. A "Wooden Bridge" in French is *Pont en Charpente* pron. pongt ang shaar-paht; in German, *Holzbrücke*—pron. holtz-bruck-eh. An "Iron Bridge" in French is *Pont en fer*—pron. pongt ang ferr; in German, *eiserne Brücke*—pron. ize-ern-eh bruck-eh. A "Wire Bridge" in French is *Pont en fer de roulage*—pron. pong-tang ferr deh rool-ajh; in German, *Drahtbrücke*—pron. draat-bruck-eh. A "Suspension Bridge" in French is *Pont suspendu*—pron. pong suus-pahn-duu; in German, *Hängebrücke*—pron. heng-eh-bruck-eh. A "Skew (oblique) Bridge" in French is *Pont oblique*—pron. pong-toh-bleek; in German, *Schrägbrücke*—pron. shrayg-bruck-eh (from *schräge*, sloping, inclined). A "Draw Bridge" in French is *Pont leviss*—pron. pong lev-eeh (from *lever* [lev-vay], to lift or rise); in German, *Zugbrücke*, from *Zug*, a pull, and this from *ziehen*, to draw. A "Swivel Bridge" in French is *Pont tournant*—pron. pohn toor-nang (from *tourner* [toor-nay], to turn). A "Foot Bridge" in French is *Pont petite*—pron. pohn pae-teet (from *petit*, little); in German, *Fussbrücke*—pron. fooss-bruck-eh (from *Fuss*, a foot).

Bridged Gutters, in Carpentry. Gutter boards which stretch or span over a space between the roof and a parapet or blocking course, supported by bearers below. (See Gutters.)

Bridging or Bridged Floors, in Carpentry. Floors in which bridging joists are used. (See Floors.)

Bridging Joists, in Carpentry. The uppermost or topmost beams in a double-framed floor which carry the flooring boards (see Floors). Syn. Fr. *Entrainte de croupe*—pron. ang-tray deh kroop

Bullder. A tradesman or workman connected with the work of building, generally domestic structures. If undertaking large erections he is generally called a "Building Contractor." Syn. Fr. for builder *Constructeur*—pron. cong-strook-toohr; Ger. *Erbauer*—pron. err-bow-err.

Builder (Master). One who undertakes the work of erecting buildings, etc., and who employs the various workmen under him, and provides all the materials, wages, etc., etc. Syn. Fr. *Entrepreneur des bâtiments* (from *entre*, between, and *prendre*, to take—literally "a taker between" one party and another)—pron. ang-terh-preh-noohr deh bah-tee-mang; Ger. *der Bauunternehmer* (from *Bau*, a building, *unter*, under, and *nehmen*, to take—literally "an undertaker for buildings")—pron. bow-oon-terr-nay-merr.

Building. A term used to denote a construction or structure composed of stone or brick and timber, as contradistinguished from a structure, as a machine, made of metal. This is termed "Construction" generally. If precision is demanded in the expression, the word Building precedes this—thus, Building Construction, or briefly, as in our term, Building. Syn. Fr. *Edifice*—pron. eh-dee-feece; also *Batiment* (a building)—pron. bah-tee-mang; Ger. *das Bauwerk* (from *Bau*, an edifice or building—literally "building work")—pron. bow- (ow as in now) -verk.

Building Beams, in Carpentry. Scarfing (which see) and bolting or strapping two beams together edge to edge, to increase the depth and strength.

Building Materials. The materials used in building construction, as stone, brick, mortar, cement, wood, slates, etc., are known collectively thus: Syn. Fr. *Matériaux* (materials). This term is suggestive: it is not materials for building, but simply materials, just as if the first want or necessity of man was shelter, and the materials of building for this would be *par excellence* materials. It is different in the German: there the syn. is *Baumaterialien*—that is, *Bau*, building, *Materialien*, materials—pron. bow-mah-tare-ee-all-ee-en.

Build, To. To construct with building materials (which see). *Der.* From the Old English word *byldan*, to build. Syn. Fr. *Bâtir*—pron. bah-teer; also *Construire* (to construct)—pron. kohn-strweer; Ger. *Bauen*

—pron. bough-enn; also *Aufbauen* (*auf*, upon or on)—pron. owf-bough-enn.

Built Beam, in Carpentry. When two beams are placed edge to edge in order to increase the depth of the beam—the two considered as one—and secured by various methods, as scarfing or indenting, or by keys or straps or bolts, the beam is called a "built beam." Syn. Fr. *Poutre d'assemblage en crémaillère* (from *poutre*, a beam, *crémaillère*, a crook, pothook, rack—i.e., hook-like indentations, see text)—pron. pooh-ter dass-ahm-blajh ang kray-mal-ee-air; Ger. *der verzahnte* (from *verzahnen*, to notch or indent) *Träger* (a beam)—pron. derr verr-zhan-teh tray-gerr.

Burrs, in Brickwork. Clinker bricks.

Butt-end, of Timber. The thickest part, near the root, or the end which presses against or upon the face of another part. Syn. Fr. *About* (*bout*, the end or termination); Ger. *Schrägenende* (from *schräg*, sloping)—pron. shraygg-enn-end-eh.

Butment Cheeks, in Carpentry and Joinery. The solid sides or parts at the sides of a mortise hole. Syn. Fr. *Joue d'un mortaise*—pron. jooh duhn mortaise (*joue*, a cheek, *mortaise*, a mortise); Ger. *Backenzapfenloch*—pron. back-en-tzap-fenn-loch (from *Backe*, cheek, *Zapfenloch*, a mortise, and this from *Zapfen*, a pin or peg, and *Loch* [guttural sound of ch, see Dissertations], a hole—from *lochen*, to bore or perforate).

Butments, in Architecture. (See Abutments.) The side supporting surfaces to receive the weight or pressure of arches. Syn. Fr. *Buttée* (from *butter* [buh-tay], to heap up, as earth or soil against a wall to sustain it); Ger. *Widerlage*—pron. vee-derr-lah-geh (from *wider*, against, and *Lage*, position)—from *lager* (lah-gerr), to bed, to put in position.

Butting Joint, in Carpentry. The junction or joint formed by two pieces—one meeting and pressing upon the surface of another, the fibres of one piece being at right angles or oblique to the other.

Buttress, in Architecture. A part projecting from a wall broader at base than at top, the office of which is to counteract the thrust or pressure given by the walls. Syn. Fr. *Bouter* or *Eperon*—pron. boo-teh, ape-rong; Ger. *Strebebogen*—pron. stray-beh boh-gen (*Strebe*, a post or stay, *Bogen*, an arch, i.e. a flying or arched buttress).

Cabinet, in Cabinet-making. A piece of furniture much more frequently met with abroad than in this country. It is tall or high, and in some cases most elaborately ornamented; some of the finest work in carved and inlaid work being met with in old cabinets. The upper part has a fall-

down forming a writing-desk; while behind, concealed by it when closed, is a range of pigeon-holes for papers, drawers, and little cupboards for valuables. The space below the desk-table is frequently utilised for drawers. Syn. Fr. *Cabinet*—pron. kah-or cah-bee-nay; Ger. *das Cabinetstück* (*Cabinet*,

a closet, and *Stück*, a piece)—pron. das cah-
bee-nett-stueck; also *der Schubladenschrank*
(*Schub*, from *schieben*, to push, *Lade*, a
drawer, *Schrank*, a shrine—literally “a push-
drawer-shrine”)—pron. derr shoe-blah-denn-
shrank.

Cabled, in *Architecture*. When the hollow
flutes of a column or pillar are filled in
with projecting convex or rounded parts,
the flutes are said to be cabled.

Cable Moulding, in *Architecture*. A distinc-
tive feature of the Norman style, in
which the convex or rounded moulding has
its surface cut into convolutions to represent
the twisted strands of a thick rope or cable.
Syn. Fr. *Moulure en tordu*—pron. mool-
uere or -euh-agh or ang torr-dooch (*moulure*,
a moulding, and *tordre* [torr-duh], to twist
or twine; *tordage* [torr-dajgh] is twisting,
tordu, twisted); Ger. *Kabeltau*—pron. kah-
bel-tow (pron. as in our word “vow”)
(*Kabel*, a cable; *kabeln* [kah-beln] is to dis-
tribute or arrange by lots or parts, as to
arrange the strands or separate pieces of a
cord).

Caisson, in *Masonry*. A floating case or
chest of timber used to build the foundations
and lower parts of the piers of bridges
in deep water. The bottom is made of
large timber securely bolted and framed
together, or remains permanently in the
water, forming the base surface on which
the pier rests. The caisson is moored or
secured in the position in which the pier
has permanently to be, and as the building
within the case proceeds it sinks till it
finally reaches and settles on the bottom.
The sides and ends of the caisson are then
removed, leaving the pier resting on the
bottom. Syn. Fr. *Caisson*—pron. kaiss-ong
(from *caisse* [case], a chest or case);
Ger. *Sinkkasten*—pron. zink-kass-tenn (from
sinken [zinken], to sink or let down, and
Kasten, a coffer, a box or chest); or *Bomben-
kiste* (from *Bombe* [bom-beh], a bombshell,
and *Kiste* [kist-eh], a chest or box, *i.e.* like
a box or case for holding shells).

Calcareous, in *Soils*, *Foundation*, or in
Garden Work. Another term for a limy soil.
Der. From the Latin adjective *calcarius*,
limy, and this from the substantive *calx*,
lime. Syn. Fr. *Calcareux*—pron. kal-karr-
ugh; Ger. *Kalkreich* (*Kalk*, lime, and *reich*,
rich—*i.e.* rich in lime)—pron. kahlk-ryeh.

Camber, or **Camber Arch**, in *Brickwork*.
An arch turned over a beam, bressummer,
or lintel, which spans an opening, in order
to relieve it from the pressure of the wall
above. Syn. Fr. *Courbure*—pron. koor-buere
(from *courbe* [koorb], a curve or bend, and
this from *courber* [koor-beh], to curve or
bend down); also *Arc à décharge* (from
décharger [deh-sharjh-eh], to lighten or
unload); Ger. *Schweifung*—pron. shvy-foong,
a curve (from *schweifen* [shwife-enn], to

curve or give a tail to, like a dog's curved
tail); also *Fensterbogen* (*Fenster* [fen-sterr],
a window, and *Bogen* [boh-genn], an arch).

Camber, in *Carpentry*. A convexity or
swell given purposely to the upper side of
a beam—or a bend given to it—so that the
load put upon it will bring it to its level;
which would bend down the beam, or allow
it to “sag” or sink in the middle, if the
beam were put in straight or level through-
out its length. Syn. (as above) Fr. *Courbure*;
Ger. *Schweifung*.

Camber Beams, in *Carpentry*. A beam
made or fixed as above named is said to be
“cambered,” but the term here given indi-
cates beams raised in the middle of truncated
roofs to throw the rain-water to the sides.
Syn. Fr. *Poutre* (poot-err), a beam, *courbée*
(koor-bay), curved, from *courber* (see above);
Ger. *Krummbalken*—pron. crumb-bahl-kenn
—from *krumm*, curved or bent, and this from
krümmen (crumb-enn), to bend or curve.

Campanile, in *Architecture*. A tower,
generally square, attached to, yet forming
part of a building. In churches it is used
as the bell tower; in domestic buildings
generally as a prospect tower, or an apart-
ment may be formed in it to serve as a
smoking room or study. *Der*. Italian *Cam-
panile* (a bell tower). Syn. Fr. *Campanile*
—pron. kam-pah-neel; Ger. *Campanile*—
pron. kam-pah-neel-eh.

Canopy, in *Architecture*. A projecting
part placed over a window or door opening,
or over a niche or recessed part in a wall.
It is generally ornamented. *Der*. From the
Latin *canôpeum*, and this from the Greek
kanopeion, a covering to a building to keep
off the flies, etc. Syn. Fr. *Couronne*—pron.
koor-on— from *couronner* (koo-ron-eh) to
crown; Ger. *Kanape*—pron. kahn-ah-pay.

Cantaltivers, in *Carpentry*. Pieces of tim-
ber, plain or ornamented, built, let or “tailed”
into the wall, from which they project at
right angles. Their office is to support the
eaves of buildings or other parts. Syn. Fr.
Modillon—pron. moh-dee-yong; Ger. *Spar-
renkopf*—pron. sparr-enn-kopff (*Sparren*, a
spar or rafter, and *Kopf*, a head); also
Dielenkopf—pron. dee-lenn-kopf (*Diele* [dee-
leh], a plank or deal, from *dielen* [dee-
lenn], to lay with planks, to floor).

Cantaltivers, in *Architecture*. The brackets
or trusses which are placed below to support
the modillions in a cornice or frieze.

Canted, in *Building Construction*. A term
applied to a part which has its corner or
angle cut off (see *Bevil*, *Chamfer*, or *Splay*).
An arch is said to be canted when it rises
in an angle to the horizontal line. Syn. Fr.
Argat—pron. aahr-gah.

Canted Moulding, in *Joinery* or *Cabinet-
making*. A moulding inclined or sloping,
as in the cornice of a pediment. Syn. Fr.
Moulure (moulding) *écornée* (from *écorder*,

to corner or take the corners off)—pron. moohl-oohr eh-korr-neh; Ger. *das abgefasste Gesims* (ab, from, Gefass, a frame, and Gesims, an entablature or cornice)—pron. dass ab-geh-fass-teh geh-seems.

Canterbury, in *Cabinet-making*. A piece of furniture, an open box or case, more or less highly ornamented, and with legs or feet, sometimes provided with castors, used to keep music-books, and for this purpose kept near the musical instrument. Syn. Fr. *Casier de musique* (literally "music case")—pron. kaw-see-eh deh moo-zeeek or moozee-eeek; also *Porte de musique*—pron. pohrt deh moozee-eeek; Ger. *die Notenspinde* (from *Note*, a note [musical], and *Spinde*, a press or cupboard)—pron. deeh note-enn-spinn-deh; also *Notengestell* (*Gestell*, a frame, a carriage, or a trestle)—pron. note-enn-geh-stell.

Capital, in *Architecture*. The upper member of a column, pillar, or pilaster. Its form and ornamentation indicate the peculiar style or order to which the column belongs. It is placed immediately below the entablature. An abbreviation often used for this term is "Cap." Der. Latin *capitellum* (the upper part of a column or pillar), and this from *caput*, the head. Syn. Fr. *Chapiteau*—pron. shah-pee-toe; Ger. *Capital der Säule*—pron. kah-pee-tahl dare zoy-leh, a pillar or column; also *Säulenkopf*—pron. zoy-len-kopf (*Kopf*, a head)—the column-head.

Capping-piece, in *Carpentry*. The strong piece of timber at the upper part of a framework, as at the tops of piles in a Cofferdam or in a Grillage (which see). The capping-piece connects all the pieces below it. Syn. Fr. *Chapeau*—literally "a hat or top covering"—pron. shah-po; Ger. *die Langschwelle* (*lang*, long, *Schwelle*, a sleeper or sill)—pron. lang-shvell-eh.

Carcase, in *Building*. The term used to denote the condition of a house or building in which the walls or partitions are built, and heavy timbers are laid, but before the general work of finishing, as plastering, laying flooring boards, and fitting up doors and windows, etc., etc., is commenced.

Carpenter. The artificer who works in heavy timber framing. Syn. Fr. *Charpentier*—pron. shaar-pang-tee-eh; Ger. *Zimmermann*—pron. tzim-err-mann—that is, the workman who makes all the wood fittings of chambers or rooms. With us this is the work of the joiner, not of the carpenter, as here explained. Der. Latin *carpentum*, a chariot, and *carpentarius*, a chariot builder; as if the principal work of a carpenter was in those old times the making of (war) chariots.

Carpenter, Workshop of the. The building or room in which the carpenter carries on his work. The heavy framing is laid out and worked in the carpenter's yard. Syn. Fr. for the workshop, *Atelier de*

charpentier (*atelier*, workshop, *charpentier* carpenter)—pron. ah-teel-ee-eh day sharr-pang-tee-eh; Ger. *die Zimmermannswerkstätte* (*Zimmer*, chamber (see Carpenter), *Manns*, man's, *Werk*, work, and *Stätte*, place, stand, or room). Syn. Fr. for the yard, *Chantier*—pron. shang-tee-eh; Ger. *der Zimmerhof* (*Hof*, a court or yard)—pron. tzim-err-hofe.

Carpentry. The art of framing heavy or large-dimensioned timbers together to form framing (see Roofs, Partitions, Floors, Centring, Scaffolding, etc.) Syn. Fr. *Charpenterie*—pron. shaar-pang-ter-ree (from *charpente* [sharpangt], timber framing); Ger. *Zimmerwerk*—pron. tzim-err-vaark (from *Zimmer*, chamber, and *Werk*, work); also *Zimmerkunst*—pron. tzim-err-kunst (from *Kunst*, art, and this from *können*, to be able—pron. koen-nen).

Carriage, in *Joinery*. The rough timber-work at side of well hole, and which carries or supports the steps. Syn. Fr. *Limon*—pron. lee-mong; Ger. *Treppenbalken*—pron. trep-enn-bahl-kenn (from *Treppe* [trep-peh], a staircase, and *Balken* [bahl-kenn], a beam).

Carry up, in *Masonry and Brickwork*. To build up a wall to a certain definite or specified height.

Carver and Gilder, in *Building Decoration*. See Gilder.

Caryatides. Female statues used in place of columns or pillars to support or carry an entablature. Syn. Fr. *Cariatides*—pron. kahr-ee-ah-teeds; Ger. *Caryatiden*—pron. karr-ee-ah-tee-denn. This has a curious derivation from the Greek. The Grecians having conquered the Caryæ, to celebrate their victory they formed the pillars of the trophies taken in the war, of statues of females dressed in the costume of the conquered country.

Case, or Casing, in *Joinery*. The timber framing which surrounds the opening in a wall in which a door or window is to be fixed. Syn. for a "door casing," Fr. *Jambes de porte*—pron. jahmbe deh port (*jambe*, a leg, and *porte*, a door); also *Joues de porte* (from *joue*, a cheek)—pron. joo deh port; Ger. *Thürahmen*—pron. tuehr-rah-men (*Thür*, a door, and *Rahmen*, a frame). Syn. for a "window casing," Fr. *Forme de fenêtre*—pron. form deh fane-ait-terr or -aitz; also *Étui de fenêtre* (*étui* [ait-we], a case); Ger. *Fensterrahmen*—pron. fenn-sterr-rah-men (*Fenster*, window—for *Rahmen* see above).

Case of Drawing Instruments. A wooden box, generally of mahogany or rosewood, containing a selection of instruments required by the draughtsman. Syn. Fr. *Étui de mathématiques* (*étui*, a case or sheath)—pron. ett or ate-wee deh mat-tay-mah-teek; Ger. *Reisszeug* (*Reiss*, a sketch, and *Zeug*, material or stuff)—pron. rice-zoig.

Casement, in *Architecture*. The void or space in a window between the mullions or

dividing bars, the space being filled with the frame and glass. In this sense it is equivalent to a "light" or window "void."

Casement Window, in Joinery. A form of window in which the framing holding the glass, or the "sheets" as they are technically termed, is divided into two parts—meeting vertically in a peculiar water-tight joint; the other edges being hinged like a door to the window-frame, one half opening to the right, the other to the left. In some forms of casement windows the frames extend from top to bottom of the window opening; in some they meet a transverse or cross bar, stretching right across the opening, and the part above has a fixed glazed frame. The casement window is often called a "French window." Syn. Fr. *Fenêtre de balcon*—pron. fay-nett-tuh or -nett-deh bal-kon (*fenêtre*, a window, *balcon*, a balcony, balcony windows being of this kind); Ger. *Söllerfenster*—pron. zoel-ler-fenn-sterr (*Söller*, a balcony or platform, *Fenster*, a window).

Casting, in Carpentry and Joinery. Twist-ing, winding, or bending of a piece of timber or wood, otherwise called warping. This usually takes place in unseasoned wood, or where timbers are unequally exposed to the weather, as one side sheltered, the other open. It is sometimes caused by unequal or by too great a pressure.

Cast Iron, in Materials. Known in the trade as pig-iron. That quality or condition of iron which is used by the iron founder in forming various articles and objects by the process of moulding—the pig iron being melted in a cupola furnace and poured into the mould in a molten condition. Cast iron is in the opposite condition to that known as malleable or wrought iron, as it cannot be hammered; but by a special process it may be so far toughened as to admit of a certain degree of hammering or working. Syn. Fr. *Fonte de fer*—pron. fongt deh fare (*fonte* means a melting or casting); Ger. *Roheisen*—pron. roe-ize-en—from *roh* (ro), rough, or raw, and *Eisen*, iron; or *der Eisenguss* (*Eisen*, iron, and *Guss*, casting, founding, from *giessen*, to gush or pour)—pron. ize-enn-goose. This term is often inverted thus: *Gusseisen*, cast iron.

Catch for Door, or Latch, in Joinery. A fastening of iron or brass to a door in addition to the ordinary lock; generally applied to the inside, towards the room, sometimes to the outside. A usual form is a hook "taking into" or "engaging" with an eye, the latter secured to the door cheek or frame. A barrel-latch is usually termed a door-bolt. Syn. Fr. *Loquet de porte* (*loquet*, a latch, *porte*, a door)—pron. lo-kay deh pohrt; Ger. *die Thürklinke* (*Thür*, a gate, *Klinke*, a latch)—pron. dee tuerr-kleen-eh; also *der Pfortenring* (*Pfort*, a door, and *Ring*, a ring)—pron. derr pfort-enn-ring.

Cavetto, in Architecture. A hollow moulding, known otherwise as the "Scotia," the curve of which is a quadrant, or nearly a fourth of a circle. Syn. Fr. *Gorge*—pron. gorgh or gorj—the throat, from a supposed resemblance of the moulding to the hollow at the back of an opened mouth; Ger. *Kehleleiste*—pron. kay-leh-lice-teh (*Kehle*, the throat, a channel, which comes from *kehlen* [kay-lane], to channel, groove, or make hollow, and *Leiste*, a band, a border, a channel, from *leisten* [lice-tane], to form, to do); also *Kehlegesims*—pron. kay-lay-geh-zims (*Gesims*, a band, or cornice entablature).

Cavity, in Building. A hollow space in a wall. Der. Latin *cavitus*, a hollow. Syn. Fr. *Cavité*—pron. kahy-ee-tae or -tay—from *caver* (kah-vay) to hollow out; Ger. *Hohle* or *Höhlung*—pron. ho-lay, hoel-oong or -uung (*Hohle*, a hole, a cavity, from *hohlen* [hoh-lenn], to excavate or dig out; *Höhlung* is an excavation or a thing hollowed out).

Cavity, Wall, in Masonry and Bricklaying. A wall built with a hollow space in the interior, extending generally from base to eaves, the object being to secure dryness to the inner or plastered and finished surface, by preventing rain or damp being drawn through from the outside. Syn. Fr. *Mur en cavité*—pron. muer ahng kaah-vee-tay; Ger. *Wand mit Höhle*—pron. vahnt mit hoeh-leh (*Wand*, a wall).

Cedar, in Timber. A species of timber or wood possessed of lasting and durable qualities, chiefly used for small work, as in the well-known covering of pencils. It is pleasantly odoriferous, and its shavings or chippings are an excellent preventive of the ravages of moths in woven or textile fabrics, etc., etc. Syn. Fr. *Pin de Liban* (*pin*, pine or fir-tree, *Liban*, Lebanon, in Syria, where the finest cedars in the world are met with, and which have long been celebrated in song and story)—pron. pang deh lee-bann; Ger. *die Ceder*—pron. dee tsay-derr. The botanical name is *Pinus cedrus*.

Ceiling, in Plastering. The upper part or roof of a chamber—the lower part of the floor of a room above a chamber. Ceilings are almost universally flat. (For curved ceilings see "Coved Ceiling.") Der. From the Latin word *cælum*, the heaven or sky—from which comes the Fr. *ciel*, with the same meaning. Syn. Fr. *Plafond*—pron. plah-fong; Ger. *Tafelwerk* (*Tafel*, a table, and *Werk*, work)—pron. tan-fel-vaik; also *die Getäfelte Decke* (*Getäfelt*, wainscot, *Decke*, cover)—pron. dee gett-eh-fell-teh deck-eh.

Ceiling, A, of Lath and Plaster, in Plastering. The usual method of forming a flat-surfaced ceiling, the plaster being supported or carried by the laths which are nailed at intervals or spaced to the lower edges or

faces of the ceiling joists. The plaster is pressed up against the laths, and part passing through the spaces between them forms a "key" or hold, by which it is secured to the laths. The lower surface when finished is generally whitewashed and sometimes papered. Syn. Fr. *Plafond de plâtre* (*plafond*, a ceiling, *plâtre*, plaster)—pron. plah-fong deh plahterr; Ger. *die geputzte Decke* (*Decke*, a ceiling or covering, and *geputzt*, dressed up, made fine or smooth)—pron. dee geh-puutz-teh deck-eh; also *die Stuckdecke* (*Stuck* comes from the Italian *stuccare*, hence *stucco*)—pron. dee stooch-deck-eh.

Ceiling, A Boarded, in Joinery. A ceiling the surface of which is composed of boards or planks, grooved or ploughed and tongued so as to fit closely together, generally or frequently with quirked bead or moulding at the joint. The planed and dressed lower surface is sometimes painted; but in superior work the best red pine is used and the surface simply varnished, thus bringing out the veins or "humour" of the wood, which has then a variegated and pleasant appearance. The timber must be well seasoned for work of this kind. Syn. Fr. *Plafond des planches* or *Plafond de menuiserie* (*planches*, planks or boards, *menuiserie*, joiners' work or joinery)—pron. plah-fong deh plangche, plah-fong day mayn-weeze-ree; Ger. *die Bretdecke* (*Brett*, a board or plank, *Decke*, a ceiling or roof covering)—pron. brett-deck-eh.

Ceiling Joist, in Carpentry. The small joist which is secured to the lower edge of flooring joists, and runs at right angles to the length of these, or transversely to the joists. The ceiling joists support the laths or boards of ceiling (see term above). Syn. Fr. *Lambourde de plafond* (*lambourde*, small joist)—pron. lahm-boord deh plah-fong; also *Traverse inférieure d'une solive* (*traverse*, a cross-piece of timber, from *traverser* [trah-verse-eh], to cross, *inférieure*, lower or under, *solive*, a large joist or beam)—pron. trah-vairste ang-fare-ee-uehr doon soh-leeve; Ger. *der Deckenschalungshalter* (*Decke*, a ceiling or covering, *Schale*, a cover, a husk, a slice, and *Halter*, a support, or *Halt*, a holdfast, from *halten*, to keep a hold of)—pron. derr deck-enn-shall-oongs-hal-terr.

Cements, in Materials. Various substances used when mixed with water to unite masses of brick or stone work, or to cover or face wall-surfaces with. The cements chiefly used now are Roman Cement and Portland Cement—of which the last is so superior as to be completely superseding the first named. An hydraulic cement is that which hardens under water; a substance from which it is very generally made is *puzzolano*. Der. Latin *cementum*, mortar. Syn. Fr. *Ciment*—pron. see-mangt or -maght

—from *cimeter* (sea-maung-tay), to cement or join to. "Hydraulic cement," *Ciment puzzolane*—pron. pudz-oh-lahn; "Roman cement," *Ciment Roman*—pron. roh-maing; "Portland cement," *Ciment Portland*—pron. pohrt-langt. Syn. Ger. for Cement, *Kitt*—pron. kit; Hydraulic cement, *Hydraulischer Kitt*—pron. high-drowl-eesh-err kit; Roman cement, *Römisch Cement Kitt* (from *kitten* [kitt-enn], to cement, to join to).

Centre of an Arch, in Carpentry and Masonry. The timber framing used to support the stones or bricks while an arch is being built or "turned." The centre is lowered by degrees by driving out wedges, so as to allow the arch gradually to settle till the full pressure is put on it. Syn. Fr. *Cintre*—pron. sing-ter; Ger. *Bogengerüst*—pron. bohng-enn-gerr-uest (*Bogen*, an arch, and *Gerüst*, a scaffolding, a staging).

Cesspool. Under the old sanitary, or insanitary, arrangements of towns, and still frequently there met with, and much used in rural districts, a tank or well-hole or receptacle, into which the sewage matter of the houses was led and retained for periods more or less, but generally very, lengthy. In theory they were supposed to be frequently, in practice were very rarely, emptied and cleared out. The improved and sanitary form of the cesspool, used in districts where public drains and sewers do not exist, is the liquid manure covered and cemented tank. Der. From the Old English word *sesse-pol*, a settling-place or pool, from the verb *sessian*, to settle. There is no exact French synonym for this. The most precise would be a term borrowed from agriculture—the *fumier à couvert*—that is, a covered dung-pit or tank. We give an equivalent sometimes used; and when we inform the reader that the water-closet is in French *cabinet d'aisance*, he will at once perceive why the equivalent we give is so phrased. It would be more correct if it were a pit for or connected with the *cabinet d'aisance*: *Fosse d'aisance* (*fosse*, pit or excavation, *aisance*, relief)—pron. foss days- or daize-angs. Syn. Ger. *die Abtrittsgrube* (*Abtritt*, a privy, and *Grube*, a pit, a ditch, a grave)—pron. dee abb-trits-groo-beh.

Chain Bond, in Bricklaying. Pieces of timber about the dimensions of a brick in section, placed along and built into the wall, to bind or bond the bricks together. Syn. Fr. *Enchevêtreure*—pron. ang-shevv-et-trure, a framing of timber (from *enchevêtrer* [ang-shay-vay-tray], to halter, that is, to bind, to entangle); or *Lien*—pron. lee-ang, a tie or bond (from *lier* [lee-aye], to tie, to bind); Ger. *Holzverbindung*—pron. holtz-ferr-bin-doong—from *Holz*, wood or timber, and *verbinden* (ferr-bin-denn), to tie together, to bind; *Verbindung* is union or junction.

Chalk, in Materials. A mass or stone, found in one of the geological formations, of a pure white colour, capable of being crushed and pounded with ease into small pieces, or pulverised or powdered. *Der.* From the Latin *calx*, and this from the Greek *chalix*, lime; also from the Old English *calc* or *cealc*. Syn. Fr. *Craie marne*—pron. krai mahn (*craie*, chalk, and *marne*, marl); Ger. *Kalk*. Another German word is *Kreide*—pron. krye-deh—which, however, denotes the chalk used to mark lines or distances upon materials.

Chamber, in Building. Synonymous with room—as bed-chamber or bedroom. Syn. Fr. *Chambre*—pron. shawm-berr—from *chambrier* (shawm-bray), to enclose, to keep confined, to lodge; Ger. *Kammer*—pron. kahn-mer; *Zimmer*—pron. tzim-mer—is another word for a room.

Chamfer, in Masonry and Joinery. The corner or edge of two meeting sides or surfaces of a body, which is cut off so as to expose a flat surface instead of a sharp edge or arris (which see). It is in some respects synonymous with splay, although in splaying—as a brick—one side, generally the upper, is cut more off than the other side or edge; in chamfering the sides are equally cut. Syn. Fr. *Chanfrein*—pron. shang-fraign—from *chanfreiner*, to chamfer (shang-fraign-eh); also *Cannelure*—pron. canne-luhr—from *canneler* (kann-lay), to channel; Ger. *Rinne*—pron. rin-neh—from *rinnen*, to run along (rin-nen); also *Auskehlung*—pron. owse-kay-loong—from *Kehle* (pron. kehl-eh), a channel—i.e. channelled or cut out.

Chamfered. When a piece of timber, as the rail of a staircase, has its angles, edges or arrises cut off equally on each side, it is said to be chamfered. Syn. Fr. *Taille en chanfrein*—pron. taihle, an edge or a cutting—from *tailler* (taihl-yeh), to cut; Ger. *Abgeschrägt*—pron. abb-geh-shraegt—from *schräg*, oblique or sloping, i.e. sloping from (*ab*) an edge or side. "To chamfer" in French is *canneler* (kanne-lay), to channel; in German *auskehlen*—pron. owse-keh-lenn, to channel out.

Chancel, in Architecture. That part of a church at the east end, which is divided from the nave by a railing, in which the altar or communion table is placed. It corresponds with that part of a cathedral or large church termed the "Choir." Syn. Fr. *Sanctuaire* or *Presbytère* or *Chœur*—pron. sang-tugh-air, praiz-bee-tair, koerr; Ger. *Altarplatz* or *Chor*—pron. ahl-tarr-plats, kore.

Channels, in Architecture. The hollow or recessed spaces in the flutes of a column or pillar.

Chantry, in Architecture. A chapel in which masses for the dead are sung or chanted, and in which the tomb of the de-

ceased for whom the service is performed is often placed. Syn. Fr. *Chanterie*—pron. shangte-ree or shagh-tree (from *chant*, singing—pron. shang); Ger. *Singplatz* or *Sangkapelle*—pron. zing-eh-platz, sang kah-pell-eh—from *singen* (sing-enn), to sing, and *Platz*, a place, and *Kapelle* or *Capelle*, a chapel.

Chapels, in Architecture. Small structures attached to large churches or cathedrals and dedicated to special purposes. In modern times the term is applied to small detached buildings serving as places of worship. Syn. Fr. *Chapelle*—pron. shah-pell; Ger. *Kapelle*—pron. kah-pell-eh.

Chapter House, in Architecture. A room or chamber connected with a cathedral, in which the dean and chapter conduct the business of the diocese. Syn. Fr. *Chapitre*—pron. shah-peet-ter—from *caput*, the head, the name being applied to the governing body of clerics—whence comes the popular word in French, *chapitral* (shap-ee-tray), to reprimand, authoritatively; Ger. *Kapitel-hause*—pron. kah-pee-tel-howss.

Cheek, in Carpentry and Joinery. The inner side or face of a piece of timber, as the inside face of a mortise of a door-post, often called the door cheek. Syn. Fr. *Joue* (the cheek)—pron. sjoo; also *Oreille*; Ger. *die Wange* (the cheek)—pron. dee van-geh; also *die Seitenwand* (*Seite*, flank, and *Wand*, a side)—pron. dee site-enn-vand.

Chevron, in Architecture. A moulding in the Norman style, the ornament of which is placed zigzag fashion. Syn. Fr. *Chevron*—pron. shay-vrong; Ger. *Chevron*—pron. shefe-rohn.

Chiffonier, in Cabinet-making. A species of small sideboard with flat top, generally of white marble, with cupboard below enclosed by plate-glass or mirrored doors or leaves, with shelving and mirror outside at back. Syn. Fr. The English name is purely French, or *Chiffonniere* (generally *Chiffonnier*), a shred-holder—also, and curiously enough, a street rag-picker, or gatherer—pron. she-foh-nee-eh; Ger. *das Putztischchen* (from *putzen* [poohtz-enn], to dress, trim, or put in order, and *Tischchen*, a table—pron. dass putz-tish-chen.)

Chimney Breast, in Masonry and Brick-laying. The part of the chimney and flue below the ceiling of the room. Syn. Fr. *la Hotte* (a funnel)—pron. lah hott. The flue above the ceiling is in French *la Souche*—pron. lah soosh (*souche* is the head of a branch).

Chimney Flue (Scotticè *Vent*), in Domestic Architecture. The tube, channel, or passage built within the thickness of wall, or in the centre of chimney or fireplace jamb, or partly in the wall and partly in the offset at back of same, by which the smoke from the burning fuel is led from the grate to the open air. For ordinary rooms the dimen-

sions of the flues in brick buildings are 14×9 in., for kitchens 18×14 in. (see Pargetting). Syn. Fr. *Tuyau de cheminée* (*tuyau*, a pipe or tube, *cheminée*, chimney, fireplace)—pron. twee-yoh duh shee-mee-nay; Ger. *die Kaminröhre* (*Kamin*, fireplace, and *Röhre*, a pipe or tube)—pron. kah-meen-roerr-eh; also *Schornstein*.

Chimney Jambs, in Building. The sides or wings of the recessed parts of the fireplace, or that which receives the grate. Syn. Fr. *Aile de cheminée*—pron. ale deh shee-mee-neh (*aile*, a wing); also *Jambe de cheminée* (*jambe* [jahmb], a leg); Ger. *Kaminseite*—pron. kamm-enn-zite-eh (*Seite*, a side), or *Kaminseitenwand*—pron. kahn-in-zite-enn-vand (*Wand*, a wall).

Chimney Piece. The framing, more or less ornamental, surrounding the fireplace opening, and generally finished with a shelf termed the mantel or mantel-shelf. Syn. Fr. *Chambranle*—pron. shawm-brahngl; also *Manteau* (mahng-toe), a cloak or covering; Ger. *Kaminsims*—pron. kahm-een-zims (*Kamin*, a chimney, and *Sims*, a cornice).

Chimney Place, or Chimney, in Building. The recess or aperture left in or projecting from a wall in which the fire-grate is fixed. Otherwise called the "fireplace." Der. From the Latin *caminus*. Syn. Fr. *la Cheminée*—pron. lah shee-mee-neh; Ger. *Kaminsims*—pron. kamm-een-seems; also *Schornsteinmantel*—pron. shorn-stine manntell (*Mantel*, a cloak, used in the term in the sense of a covering): for der. see above. The term chimney is with us almost universally used as designating the chimney flue (see above).

Chimney Shaft, in Architecture. The part of a building which continues the flue in the wall, and terminates it outside the building. The shaft is ornamented in accordance with the style of the structure, and can be made to form a very distinctive feature of the general design, especially where several flues terminate at the same point in the roof. In this case the chimney shaft is called a chimney "stack." The divisions between the flues are called the "withs." Syn. Fr. *Tuyau de cheminée*—pron. twee-yoh deh shee-mee-nay; Ger. *Kaminröhre* (*Röhre*, a tube, from *Rohr*, a hollow cane or reed)—pron. kamm-een-roerr-eh.

Chip, To, in Masonry, Carpentry, and Joinery. To take off, generally from the rough or outside part or surface, small pieces of stone or timber with chisel, axe, or adze. Syn. Fr. *Fendre* (to split—hence *fendiller*, to crack)—pron. fang-derr; also *crevasser*, to crack or chip (*crevasse*, a chink or crevice)—pron. kray-vass-eh; Ger. *Auf-reissen* (*auf*, on or upon, *reissen*, to tear)—pron. owf-reece-enn. To "chip off the rough": Syn. Fr. *Dégrossir*, to rough-grind or chip off (from *dé* = the particle un-, as in untie,

unbroken, or from *de*, from, and *grossir*, to increase or make larger—thus *dégrossir*, to make less, as chipping will do); also *Décrotter*—literally "to rub off the dirt from, or to scour a surface," and this from *crotter*, to make dirty, and *dé*, un-, as before—that is, to do the opposite, or take from the surface; Ger. *Schroten* (to rub off, or to lower the surface, and this from *Schrote*, a cutting-knife or chisel)—pron. shro-teun; also *aus dem Gröbsten hobeln*—literally "to get parts or materials out of the rough," to use the technical or trade term, or coarse (from *grob*, coarse, rough, and *hobeln*, to plane or smooth, from *Hobel*, a plane)—pron. owss demm grebb-stenn ho-belln. "Chippings" generally, the result of chipping materials: Syn. Fr. *Ciselage* (from *ciseau* [seize-oh], a chisel); Ger. *das Grobmeisseln* (*Grob* [see above], and *meisseln*, to cut or carve, from *Meissel*, a chisel)—literally "to carve out of the rough"—pron. dass grobbe-mice-eln.

Chippendale, in Cabinet Making. A term now frequently used to denote articles of furniture in a certain style. Chippendale was the name of a cabinet maker who flourished in the last century, and was celebrated for the production of very fine articles of furniture, some of the cabinets which he designed being specially fine works of the kind. Since the recent revival of the "Queen Anne" style of architecture, there has been a great demand for the quaint, and not always either elegant or convenient, articles of furniture and house fittings of the period, and this has given rise to a desire to have Chippendale furniture. High prices, for example, have been given for a real Chippendale chair—an article of furniture which to the notions of many is neither pretty to look at, nor convenient to move about or sit upon.

Choir. See Chancel above.

Christian Style, in Architecture (see Gothic Style).

Chisel, in Carpentry, Joinery, and Masonry. A tool used for cutting and chipping wood or stone. Its edge is at right angles to the body or handle, and its breadth or cutting edge varies. Der. From the Latin *cæsus*, and this from *cædo*, I cut. Syn. Fr. *Ciseau*—pron. seize-oh—from *ciseler* (seize-eh-lay), to cut or carve; Ger. *Meissel*—pron. mize-ell—from *meisseln* (mi-seln), to cut or carve. "To chisel," *ciseler* and *meisseln*. "Chiseling" is *ciselage* (see-zeh-lahj) and *meisseln*.

Church, in Architecture. A building set apart for Divine service or public worship. Syn. Fr. *Eglise*—pron eh-gleeze; Ger. *Kirche*—pron. keer-scheh.

Cill, in Masonry. A cross-piece of stone laid across the bottom of a void—as a window opening—in a wall. Window cills are "weather-edged," that is, have that part of the surface towards the outer edge

sloping, so as to carry off the rain-water; and are "throated" on the under side, to prevent the "drip" from passing along that surface to the wall. "Throating" consists in cutting a groove along the under side of the cill, near the outer edge. Syn. Fr. *Seuil de Fenêtre*—pron. seueel deh fen-ne-terr (*seuil*=threshold), or *Pierre* (stone) *de Seuil*; also *Longrine*—pron. long-reen; Ger. *Schwelle*—pron. schwell-eh (from *schwellen* [shwell-en], to swell or bulge out as the cill projects from the face of wall).

Cill or Sill, in Carpentry. The lowest member or base timber, as of a partition-framing. Syn. Fr. *Sablière*—pron. sah-blee-air; Ger. *Unterbalcken*—pron. oon-terr-ball-kenn—i.e. the under beam.

Cincture, in Architecture. Known also as the Astragal (which see); it is a projecting fillet or ring placed at the top and the lower part of a column or pillar. Syn. Fr. *ceinture*—pron. saihn-tuere; Ger. *Gurt*, a girdle, from *gürteln* (gurr-tehn), to girdle.

Cinquefoil, in Architecture. An ornamental arrangement of leaves conventionally treated, taking the form of a five-sided or pentagonal form. From its resemblance to the clover leafage it is termed by the French architects "*cinque-feuille*," that being the French name for the clover leaf—pron. sank-feul; Ger. *Fünffingerblumen* (meaning a five-fingered flower)—pron. fuent-fing-gerr-blooh-menn.

Circular Saw, in Timber Working. A saw made of a flat, thinnish disc of iron or of mild steel, with segments bolted to the outer edge or periphery in large saws, which are serrated on the outer edge, or provided with saw teeth of different gradations of fineness. The circular saw is keyed on to, and carried by, an iron shaft, to which, by appropriate "gearing," a very high rotative velocity is given. The timber to be sawn up by the circular saw is fixed in a frame, which is by appropriate mechanism brought gradually up to the action of the saw, the horizontal progression of the frame being proportioned to the velocity with or rate at which the saw cuts up or divides the timber. In circular saws of small diameter the teeth are cut on the outer edge of the disc itself; not bolted on in segments, as in large saws above described. Syn. Fr. *Scie* (a saw) *circulaire*—pron. see sir-ku-lair; Ger. *die Kreissäge* (*Kreis*, a circle, and *Säge*, a saw)—pron. krice-say-geh.

Circular Staircase, in Joinery. A stair placed in a circular well-hole, in the interior of which the steps are placed, winding round and gradually rising in level like a screw; sometimes also called a "helical" or "geometrical" staircase, which terms are synonymous. In this form there is no well-hole, but the stair may be placed in a free or open space, as in the floor space

of a shop, by which access is had to an upper floor. The steps wind helically round a central pillar, column, or newel post. Syn. for a circular staircase, Fr. *Escalier en tournant*—pron. ess-kahl-ee-eh ang toor-nang; Ger. *die Wendeltreppe* (*Wendel* from *wenden* [ven-denn], to turn round, and *Treppe*, a step)—pron. venn-dell-trep-peh. Syn. for a helical or geometrical staircase, Fr. *Escalier à noyau*, also *Escalier en helice* (*noyau*, a newel [which see], *helice*, a screw)—pron. ess-kahl-ee-eh ahn-no-yoh, ess-kal-ee-eh ang hale-eece.

Cistern, in Plumbing. A receptacle or small tank to contain the water supply of houses. It is generally made of wood lined with lead or zinc—sometimes of slate slabs, clamped with copper or iron bands and cemented. Syn. Fr. *Citerne*—pron. see-tairn; Ger. *Wasserbehälter*—pron. vahss-err-bee-hal-terr; or simply *Zisterne*—pron. tsis-tern.

Clamp, in Brick Making. A method of building up bricks for burning, the fuel being contained within the interior. Syn. Fr. *Brique construction pour la chauffage*—pron. breek con-strook-see-yong poor leh show-fajh; Ger. *Ziegelbau für brennen*—pron. tzee-gell-bow (as in now) fear brennen.

Clamp, in Joinery. A cross-piece, mortised and tenoned (or ploughed and grooved) to the ends of boards placed parallel to each other, and so that the fibres of the clamp run at right angles to the fibres of the boards. The object of clamping is to prevent the longitudinal boards from warping or casting. Syn. Fr. *Barre emboîtée*—pron. bahr ahm-boah-tay (*barre*, a bar, and from *emboîter* [ang-bwah-tay], to joint or dovetail, to clasp); Ger. *Brettbindung*—pron. brett-bin-doong—i.e. board binding or junction.

Clamp, To, in Masonry and Joinery. To secure stones together with pieces of iron shaped like the letter E, the tails being let into grooves or holes made on the edge of each stone, and leaded in (see Leaded). In Joinery the flooring boards are clamped by means of an appliance termed a flooring clamp, and brought close together at the joints. Syn. Fr. *Emboîter*, to join (from *emboîture*—pron. ahm-bwat-eure, a joint)—pron. ahm-bwat-eh; Ger. *Klammern*, to clamp, to clasp (from *Klammer*, a brace or clamp-iron)—pron. klah-merrn. In masonry, Syn. Fr. *Encastrer*, to set into a groove—hence *encastrement* (ang-kass-ter-mang), groove setting or placing into a groove—pron. ang-kass-treh; Ger. *eine Klammer in zwei Steine einarbeiten* (*eine*, one, or *a*, *Klammer*, clamp, *in*, in, *zwei*, two, *Steine*, stones, *ein* [for *hinein*], into, and *arbeiten*, to work, from *Arbeit*, work or labour)—pron. ine-eh klah-merrn in tzvi stine-eh ine-ar-bite-enn. Der. From the Old English word *clam*, a bandage (lying together).

Clapboarding, in Joinery. The side or

exterior covering of the framework of a wooden house or shed, or the posts of a wooden enclosure or paling, composed of narrow boards or planks so laid, if horizontally, that the upper edge of the lowest board is covered or lapped over a short breadth by the edge of the board next in succession. If the boards are laid vertically, the left-hand edge, for example, of the board last laid is covered with, or lapped over by, a narrow width of the board to be nailed next in succession. A series of projections—horizontal or vertical—is thus formed along the face of the structure, the object being to throw the rain or wet off and away from the joint. Syn. Fr. *Garnir de bardeaux* (*garnir*, to furnish or cover, *bardeau*, shingle—i.e. thin, narrow boards: see Shingle)—pron. garr-near deh barr-doh; Ger. mit *Schindeln decken* (*Schindel*, shingle or split-boards, and *decken*, to cover, from *Decke*, a cover)—pron. mit sheen-dehln-deck-enn.

Classical Style, in Architecture. This term is used to distinguish certain styles of architecture from the Gothic style and its offshoots (see Gothic, Elizabethan, and Domestic Gothic Styles). Properly the term is applied only to the Grecian and the Roman styles (which see); indeed, if strictly defined, it would refer only to the Grecian, as the Roman style is based upon this, and in an artistic sense may be said to be a degraded Grecian. The term is, however, now greatly widened, so as to include all those styles—such as the Italian—the general details of which are characterised by the peculiar features of the Grecian and Roman styles (which see), and opposed to those of the Gothic or Pointed style. Der. From the Latin *classicus*, and this from *classis*, a class, and means that the subject is of the first class or highest order. Generally, as in literature, it is understood to denote something pure, refined, or what is called in good taste, and in this sense is obviously applicable also to Gothic architecture—which application, however, as we see, is never made in practice.

Clay, in Materials. A mineral substance, or species of soil or earth of a soft, plastic, claggy, more or less tenacious birdlimy character, varying according to its constituents—as a limy calcareous clay, or loamy or vegetable earth clay. Der. From the Old English word *cleag*, from which comes the term clag or claggy (see above). Syn. Fr. *Terre-glaise*, or simply *Glaise* (*terre*, earth or soil, *glaise*, potter's earth or clay, from *glaiser* [glaze-eh], to cover or daub over with clay, and from this also *glaisière* [glahze-ee-air], a clay pit)—pron. tairr-glaze; also *Terre grasse* (*gras* [grah or graw], fat, greasy)—pron. tairr grass; also *Argile*; Ger. *die Töpfererde* (*Töpfer*, a potter, and *Erde*, earth, soil, potter's earth)—pron. toep-

ferr-err-day; also *der Thon* (clay)—pron. ton; also *Lehm*. "Fire clay," a bluish-coloured clay, capable of withstanding very high temperatures—hence used for forming bricks for furnaces, and for pointing same: Syn. Fr. *Argile réfractaire*—pron. ahr-sjeel ray-frak-twahr (*réfractaire* from the Latin *frango*, I break, and *re*, again—i.e. to break back again, to resist); Ger. *Feuerfesterthon*—pron. foy-err-fess-terr-tohn.

Clay Puddling, in Masonry. Used in embankments, foundations, etc., for preventing water from passing through or penetrating to the centre of wall. The clay, well worked and free from stones, pebbles, and extraneous vegetable matter, is placed in the work in thin layers, and well and carefully padded down with a rammer or the feet all over the surface to make the mass as compact and close as possible. The term is a corruption of puddling as in water. Syn. Fr. *Pétrir l'argile ou la glaise* (*pétrir*, to knead, as one kneads bread, which conveys a good idea of what puddling is)—pron. peh-treer lar-gheel oo lah glaze; Ger. *den Thon kneten* (*Thon*, clay, and *kneten*, to knead or maul)—pron. denn ton neh-ten.

Clearcole and Finish, in Painting. A term used to denote the cheapest kind or class of painting, in which the surface is first cleaned or rubbed with pumice stone, all holes or cracks "made good," or filled up with putty, then painted over with one coat of whitening, sized or glued—that is, mixed with a solution of glue—and finally with a coat of white lead or oil colour, which is termed the "finish."

Clear-Storey or Clerestory, in Architecture. The upper part of the nave of a large church or cathedral, placed over the triforium. It is lighted by a row of windows. Indeed, the term is often applied to indicate the window lights in the upper story of a building such as a tower or turret. Syn. Fr. *Clairetage* (meaning clear or lighted floor)—pron. klair-eh-tajh (from *clair* [klair], light or clear, and *étage* [eh-tajh], a floor, and this probably from *étager* [eh-tajh-eh], to taper off, as the rooms in successive stories of a building "taper off" or are reduced in height as they get higher); also *Cléristère*—pron. klair-ee-stare; Ger. *Lichtgaden* or *lichtes Stock*—pron. leecht- or leecht-gaw-denn, or leecht-ace stock—from *lichten* (leegh-tenn), to light or clear up, and *Gaden* (gaw-denn), a chamber story; also *Stock* (a stack or post, but also a story).

Cleft, in Timber. A crack or split in a tree caused by frost. Syn. Fr. *Gélivure* (from *gelée* [jhay-lay], frost, or from *geler* [jhay-lay], to freeze)—pron. jhay-leeve voohr; Ger. *die Wetterkluft* (*Wetter*, the weather, and *Kluft*, a gap or cleft)—pron. vett-err-klooft. A crack or cleft in wood generally, without specifying cause, is in

French *Maille de bois* (maille, a mesh, a speck, bois, wood)—pron. mahl or maw-il deh bwah; Ger. *Riss im Holz* (*Riss*, a rent, chink, crevice, *Holz*, wood)—pron. riss im holtz.

Clench, or Clinch, in Joinery. To clench a nail is to drive a nail of greater length than the thickness of the two pieces to be secured together, so that a part projects beyond the lower surface. This projecting part is turned back and hammered down into, or imbedded in, the wood. This operation is called clenching. *Der.* From the Danish word *klinke*. Syn. Fr. *Etalinguer*, to hold fast, to grip—pron. eh-tah-leeng-gay; also *River*, to rivet—pron. reeve-eh; Ger. *Nieten*, to rivet, from *Niet* (neet), a rivet—pron. nee-ten.

Clinched, in Carpentry and Joinery. When a nail connecting two pieces is driven so that its end projects some distance beyond the face of the lower piece, and is bent or hammered to the side and made to lie on the face, it is said to be clinched or clenched; so that it cannot be drawn or punched out till the bent part is broken off or straightened. Syn. Fr. *Serrer* (ser-eh), to clasp, to pinch, to tighten; also *Brider* (bree-deh), to curb or bridle, to hold fast; also *Etalinguer* (eh-tah-leeng-geh), to bind; Ger. *Befestigen*—pron. beh-fess-tee-genn, to fasten; *Befestigung* (beh-fess-tee-goong) is a fastening or clenching; also *Festhalten* (fest-hall-tenn), from *fest*, fast, and this from *fesseln* (fess-eln), to chain, to fetter, and *halten* (hal-tenn), to hold; also *Festklampe*—pron. fest-klam-peh, from *klammern* (klah-mairn), to clamp, to clasp; also *Nagelklammern mit einem Hammer*—pron. nah-gel-klah-mairn mit ine-enn ham-merr—from *Nagel*, a nail, and *Hammer*, from *hammern* (hah-mairn), to hammer or make malleable.

Clinker, in Bricklaying. A part or piece of a brick. It is sometimes applied to a hard, well-burnt, sound brick, which when struck gives a clear ringing or clinking sound. *Der.* From the Ger. *klingen*, to sound or clang, or from the Latin *clango*, I sound. Syn. Fr. *Brique d'Hollande* (the best being there made)—pron. breek dohl-land; Ger. *Ziegelhartbrante*—pron. tzeeg-el-hart-bran-teh (*Ziegel*, a brick, *hart*, hard, from *harten* [har-tenn], to harden, and from *brennen* [breh-nenn], to burn).

Cloisters, in Architecture. The narrow and roofed-in galleries or covered ways connecting different parts of a monastery, or the covered side-walks of a cathedral. *Der.* From the Latin *claustrum*, a barrier or a bounded or enclosed place, and this from *claudo*, I shut up or close. The Old English word is *claustr*. Syn. Fr. *Clôture*—pron. klohtohr, or -ure; Ger. *Kreutzgang*. The singular of the term, "cloister," is used to denote a four-sided area, enclosed by buildings, two sides being the church, the other two being

the domestic or living rooms of the ecclesiastics. Syn. Fr. *Clôître*—pron. kloah-terr—from *clôître* (kloah-tray), to enclose or shut up; Ger. *Kloster*—pron. kloh-sterr.

Closer or Closure, in Bricklaying. The last brick but one, in some cases the last brick, in the course (which see). To secure the proper bond it is necessary that the closer or closure should be part of a brick, generally a half-brick. Syn. Fr. *Boutisse-petite*—pron. boo-teece-peh-teet (*boutisse* is a header [for header brick see Header], i.e. a little header); also *Demi* (deh-mee)—*boutisse*, or half-header; Ger. *Ziegelschluss* or *Schlussziegel*—pron. shlooss-tzee-gell (*Schluss*, closing or conclusion).

Closet, in Domestic Architecture. A small apartment or inclosed space in which household articles are stored (see Store Closet). If large enough to contain a bed, it is termed a bed closet; if appropriated to the family convenience it is termed a water closet or w.c. (which see); if for clothing it is called a wardrobe closet or clothes closet; and if for the napery of the house a linen closet. *Der.* From the Old English word *clusa*, a prison, or a "close"; or from the Latin *claustrum*, and this from the verb *claudo*, I shut. It is probably a corruption of the word "closed"; and one writer has hazarded the explanation that it simply defines that a place is very limited or close-set—a derivation only too applicable to the very small places to which the name of closet is given in the majority of houses. The Fr. syn. is generally *Cabinet*—pron. kah-bee-neh; Ger. *Kleine Kammer* (a little chamber)—pron. klin-eh kam-merr.

Closets, in Architecture. The small chapels which run along the sides of a cathedral. In domestic architecture small apartments used generally as store-rooms. *Der.* From the same Latin root as cloister (which see), meaning a shut-up place, a confined or small space. Syn. Fr. *Cabinet*—pron. kah-bee-neh; Ger. *Kabinett*—pron. kah-bee-nett; also *Kämmerchen*—pron. kem-merr-chen, a little chamber.

Clustered Column or Pillar, in Architecture. A feature very characteristic of Pointed or Gothic architecture, in which the general bulk of the pillar is made up of a series of smaller pillars, joining at a point at or near to their diameter. Syn. Fr. *Colonne en faisceau* or *Perche*—pron. kohl-on ahn fess-sch or pairsh—from *colonne*, a column or pillar, and *faisceau*, a bundle (of reeds), a sheaf, *perche*, a pole; a number of poles tied together, which gives a good idea of a clustered column.

Coach House, in Domestic Architecture. An apartment generally under the same roof as the stable, in which the carriage of the family is kept when not in use. Syn. Fr. *Remise de voiture* (*remise*, a coach-

house, from *mettre* [mett-errh], to place or set, and re, again—that is, set back again, *voiture*, a carriage)—pron. ray-meeze deh vwah-ture; Ger. *der Wagenschuppen* (*Wagen*, a coach or carriage, and *Schuppen*, a shed or lean-to), from which comes the word “shippon,” the north of England term for a cowhouse)—pron. vah-gen-shoep-pen.

Coal Cellar, in Domestic Architecture. One of the underground, basement or cellar apartments of a house, in which the coals and firewood for domestic use are stored up or kept. If the store place be outside, as in the yard, and detached from the house, it is called a “coal house.” In Scotland, however, this outside building is generally called a coal cellar, although it be above ground. Syn. Fr. *Charbonnière* (from *charbon*, charcoal; coal in French is *charbon de terre*—that is, “charcoal of the earth”)—pron. sharr-bon-yair; Ger. *das Kohlenkammer* (*Kohle*, coal, *Kammer*, a chamber)—pron. koh-len-kahm-merr; also *Kohlenkeller*—pron. koh-len-kell-err (*Keller*, a cellar).

Coarse Stuff, in Plastering. Mortar mixed with hair for the first coating in plaster work, and also in Floating (which see). Syn. Fr. *Mortier blanc* (*mortier*, mortar, *blanc*, white)—pron. mor-tee-eh blahng; Ger. *der Haarmörtel* (*Haar*, hair, *Mörtel*, mortar)—pron. derr hahr-moerr-tell.

Coat, in Painting and Plastering. The layer of paint or plaster put on a surface at one time—as “first coat,” “second coat”—the one coat being allowed to dry before the other is put on. Der. Our word coat is from the Latin *cottus*, a tunic, as is also the French *cotte*, a petticoat. Syn. Fr. *Couche*—pron. koosh, a layer or bed—from *coucher* (koo-sheh), to lie down; Ger. *Lage*—pron. lah-geh, a layer—from *Lager* (lah-gerr), a couch or bed; also *der Ueberzug* (*über*, over, *Zug*, drag)—pron. ooe-berr-tzoog; also *die Schicht*, a layer—pron. sheecht.

Cob Wall, in Building. A wall built with clay or adhesive soil, sometimes mixed with chopped straw to secure a “bond” amongst the material. Many cottages of the poorer class in the south of England are built in this way; and in tropical countries, and in South America more especially, the system is largely employed. When well made, and protected from vertical rains by roofs and eaves, cob walls will last many years. Some such structures are known to be over two hundred years old. (See Pisé.) Syn. Fr. *Mur en brique non cuite* (i.e. unburnt brick)—pron. muhr ahn breek nong kweet (*cuite*, burnt or baked, from *cuire* [queere], to cook or bake); Ger. *Ungebrannte Ziegelsteinmauer* (i.e. unburnt brick wall)—pron. oon-geh-brann-teh tzee-gell-stine mough-err—from *brennen* (bren-nen), to burn, *brannte* (brann-teh), burnt, or *gebrannt* (geh-brant): *ungebrante*, not burnt.

Cocking or Logging, in Carpentry. The jointing or joining of a tie beam or joist to the wall plate by notching. Syn. Fr. *Joint à entailles*—pron. jboh-ant or jo-ahnt ah ang-tah-il (*entaille*, a notch or niche, from *entailler*, to notch—pron. ang-tah-yai); Ger. *Kammenfuge*—pron. kam-menn-foo-geh—from *Kamm*, a ridge or crest, a comb, and this from *kämmen* (kah-menn), to comb or card, and *Fuge*, a joint, from *fugen* (foo-genn), to join.

Cofferdam, in Masonry. A space in water enclosed by piles and boarding, from which the water is pumped out; affording working ground for the laying of foundations, as those of the piers of a bridge. Syn. Fr. *Batardeau*—pron. bah-tar-doh—from *battre* (bat-ter), to beat, and *eau* (oh), water—literally “to beat off the water” (*batardeau* means, too, a false or bastard casing); also *Coffre* (meaning a chest, our word coffer)—pron. koff-err; Ger. *Fangdamm*, from *fangen* (fang-enn), to catch, i.e. keep firm—*fang* is catching—and *Damm*, a dyke, a mound, from *dammen* (dah-menn), to confine, to keep up.

Cogging, in Carpentry. Joining of two pieces with notched, cogged, or indented parts. Syn. Fr. *Endenture* (from *endenter*, to indent, and this from *dent* [dang], a tooth, a notch)—pron. ang-dang-toohr; Ger. *Verzähnen* (*Zahn*, a tooth)—pron. ferr-tzahn-enn. The cogged joint itself is in French, *Assemblage à entaille* (*entaille*, a notch)—pron. ah-sahng-blahj ah ang-tah-ee-ill; Ger. *das Ueberkamm* (*über*, over, and *Kamm*, a ridge or crest, the part between two notches forming a ridge or raised part)—pron. ooe-berr-kamm.

Collar or Collar Beam, in Carpentry. The member of a short spanned roof, fixed horizontally at same height above the walls to the rafters. It takes the place of a tie beam. The term is also applied to the horizontal beam framed between the heads of queen posts. Der. The word collar is from the Latin *collum*, the neck. With nearly every nation the word is associated with the idea of bondage. Hence our common phrase of “collaring a fellow.” As applied in the present case to a beam, the word collar may either have been given with this idea of binding or securing, or because it is a member placed near the neck or upper part of the roof truss. Syn. Fr. *Entrait seconde*—pron. ang-tray zay-kongd (*entrait*, a tie beam—that is, a second tie beam, or a horizontal member above the chief or tie beam proper); also *Entrait petite*—i.e. a little or lesser tie beam; Ger. *Zweitebindebalken*—pron. tzvite-eh-bindeh-ball-kenn—from *binden* (bin-denn), to bind or tie together, *Balken*, a beam, and *zweite*, second.

Colonnade, in Architecture. A range or row of columns or pillars in line. Syn. Fr. *Colonnade*—pron. kohl-on-nahd; Ger. *Säu-*

lenreihe—pron. zoy-lenn-rye-eh (*Säule* [zoy-leh], a pillar, and *reihe*, a row or rank, from *reihen* [rye-enn], to file, to string together).

Column, in *Architecture*. A pier, circular in section generally, of smaller diameter at top near capital than at the foot near base, which supports or carries a mass of building above. The column is divided into three parts—the base, the shaft, the capital. Syn. Fr. *Colonne*—pron. kohl-oun; Ger. *Säule*—pron. zoy-leh.

Compartment, in *Architectural Decoration*. When a space is surrounded with or enclosed by mouldings, or in painted work by a border, it is so called. When the floor space of an apartment is divided into spaces the term "bay" (which see) is often used in place of "compartment." Der. From the Latin *partiri*, to share, and *con* (from *cum*), with, as one compartment shares the general space with another. Syn. Fr. *Compartment*—pron. kohm-pahrt-mang; Ger. *Abtheilung*—pron. abb-tile-oong—from *Theil*, a part, and hence *theilen* (tile-enn), to divide.

Compasses, Beam. An instrument used in describing large circles or arcs of circles on the "drawing-floor," or on a large chalked board for full-sized working drawings. It is so called from its principal feature, a long beam or bar in which two movable heads slide to and fro, one of which carries at its lowest side a pencil tube, and the other a sharp-pointed pin or tracer. The heads can be secured on the beam to any points required, the distance between them giving the radius of the circle or arc, by pinching, set, or thumb screws. Syn. Fr. *Compas à verge* (*compas*, a compass, and *verge*, a rod—pron. valrge); Ger. *Stangenzirkel* (*Stange*, a rod or bar, and *Zirkel*, a circle)—pron. stahng-enn-tzeer-kel.

Compo, in *Plastering*. A term used where outside wall surfaces are covered or coated with cement. The term is generally understood to refer to Roman cement (see Cement). In English it is a corruption or abridgement of "composition." Syn. Fr. *Cimentage*—pron. see-mang-tahj (*ciment*, cement), or *Platrage*—pron. plah-trajh—from *plâtre*, plaster; also *Badigeon*—pron. bah-dee-jhon, stone colour (Roman cement being like stone, or presumed to be like it)—from *badigeonner* (bah-dee-zohn-neh), to paint with stone colour; Ger. *Anstrich*—pron. ann-strich, to give an appearance in painting; the term *Tünchen* is also applied, or *Tünch*, although *tünchen*—pron. tuenn-chen—is to whitewash.

Composite Order, in *Architecture*. The fifth order of Roman architecture or style. It is so called, as it is a compound of the characteristics of the Grecian, Ionic, and Corinthian. The capital is distinguished by the introduction of Ionic volutes into the ornamentation. Der. Composite, from the Latin *ponere*, to place and *con*, with. Syn. Fr.

Ordre composite—pron. ord-err kom-poh-zeet; Ger. *Compositenordnung*—pron. kom-poze-ee-tenn-ord-noong (*Ordnung*, an order).

Compound Arch, in *Architecture*. When an arch is made of arches recessed, of different spans, and clustered together, it is so called.

Concrete, in *Building Materials*. A mixture of mortar or of hydraulic lime and gravel or small pieces of broken stones. It is used in a semi-liquid or readily flowing condition, and is thrown or tilted into excavations or trenches of foundations when the soil is insecure or a specially good foundation is required. When set the foundation courses are built upon the surface. The best kind of concrete is that known as Portland cement concrete, in which this cement is used as the binding material in place of hydraulic lime. Der. From the Latin word *concretus*, grown together, compounded, and this from *cresco*, I grow, or *creresco*, to grow, and *con*, with. Syn. Fr. *Beton pierreée*—pron. bett-on pee-air-eh; Ger. *Beton*—pron. beh-ton.

Conduit, in *Masonry and Bricklaying*. A channel for conveying water, lined with stone or brick. Often enclosed or covered—if not it is called an open conduit. Der. From the Latin *conductus*, drawn together, and this from *duco*, I lead or draw, or *ducere*, to lead, and *con*, with. Syn. Fr. *Conduit*—pron. kong-dwee (from *conduire*—pron. kong-dweer, to lead or conduct); also *égout*—pron. eh-gooh, a running down (from *égoutter*—pron. eh-goo-teh, to drain away); Ger. *Gerinne*—pron. geh-rin-neh (*Rinne*, a channel or gutter, and this from *rinnen*, to run, or, as in the present case, to flow); or *Wasserleitung*—pron. vahss-err-lite-oong (*Wasser*, water, and *Leitung*, leading, or a guide); also *Leitungsröhre*—pron. lite-oongs-roe-reh (*Röhre*, a tube or pipe).

Connexion or Connection, in the sense of being connected or joined with another in work. Der. Connection from the Latin *necto*, I bind, or *nectere*, to bind, and *con*, with; *Connezion*, from *nezo*, I bind, and *con*, with: *nexus*, often used in scientific discussions, is a binding or tying together, or the bond between two things. Syn. Fr. *Réunion*—pron. ray-oon-ee-yong; Ger. *Verbindung*—pron. ferr-bin-doong.

Conservatory, in *Garden Architecture*. A structure the upper part of which is glazed, the lower part or basement only being of stone or brick; the purpose of which is to rear and grow choice and rare flowers or tropical plants under shelter. It is distinguished from other forms of glass or glazed garden structures, such as green-houses, vineries, peach-houses, and the like, by its being more especially devoted to flowers—fruits being rarely, with the exception of a few vines in small buildings, grown in conservatories. The conservatory

may either be a detached structure, or connected directly with the house or mansion. If the latter, it is so arranged that entrance can be obtained from the drawing- or dining-room. The term is derived from the French *conserver*, to keep or preserve, and this from the Latin *servare*, to serve, and the prefix *con*, with. There is no French synonym conveying the English meaning, the nearest being *Jardin* (garden) *des plantes*—pron. zhar-dang day plahn-tz. It might be more nearly rendered "a building for flowers"—*Bâtiment pour les fleurs*. The German synonym is *das Palmenhaus*—that is, a palm-house, conservatories being often used for the growth of palms. The term *Blumenhaus* (*Blume*, a flower) would be more precise or definite.

Console, in *Architecture*. A projecting truss, otherwise named a "corbel" (which see). Syn. Fr. *Console*—pron. cong-sol; Ger. *Pfeilertisch*—pron. file-er-teesh—from *Pfeiler*, a pillar or pier, *Tisch*, a table.

Contract. A written and duly signed and legally attested agreement for the performance of a certain work. Der. From the Latin *traho*, I draw, and *con*, with; literally a contract is the "drawing together" of the terms agreed upon. Syn. Fr. *Contrat*—pron. kohn-trah—from *contracter* (kohn-trahk-teh), to contract; also *Convention* (an agreement)—pron. kohn-vang-see-ong or -ogh—from *convenir* (kohn-veh-neer), to agree or bind with, and this from *venir* (veh-neer), to come, and *con*, with or together; Ger. *Vertrag*—pron. ferr-trahg (from *tragen*, to carry—pron. trah-genn).

Contractor, in *Building*. One who engages or contracts under agreement (see *Contract*) to execute work of any kind at a certain price and under certain conditions named in the specifications and drawings prepared for the work. Syn. Fr. *Entrepreneur* (literally "a taker between")—pron. angtr-preh-neuhr—from *prendre* (prang-derr), to take, and *entre* (angt-err), between; Ger. *Unternehmer* (literally "taker under")—pron. uhn-ter-neh-merr—from *nehmen* (neh-menn), to take, and *unter*, under.

Cope or Coping, in *Masonry and Brick-laying*. The stones or bricks laid on the top of a wall by way of finish. If of stone, the edges are generally feathered, or with splayed or sloping sides. Bricks with rounded edges or with sloping top are often used. Syn. Fr. *Tête de mur* (*tête*, head, *mur*, wall)—pron. tate deh muhr; Ger. *der Mauerhut* (*Mauer*, a wall, *Hut*, a hat or cap)—pron. mower-hoot. A "cope" or "coping brick" is made either in the usual form and laid on edge (see *Brick on Edge*), or half round on the upper side, or played on both sides, sloping like a span roof. Syn. Fr. *Tuileau* (*tuile*, a tile)—pron. tweel-oh; Ger. *der Deckstein* (*Decke*, a cover, from

decken [dek-kenn], to cover, to screen, and *Stein*, a stone)—pron. deck-stine. A "cope stone" in French is *Tablette d'un mur* (*tablette*, a shelf)—pron. tahb-lett; Ger. *Kappenstein* (*Kappe*, a cap)—pron. kap-penn-stine.

Copper, in *Domestic Architecture*. The boiler in the wash-house or scullery is frequently so called, either from the fact that at one time the majority of such vessels were made from the metal copper, or from the vessel of the same name used in brewing. The nearest approach to the like term in French is *Chaudron* (from the word *chaud* [show], heat—literally "a heater or warmer of water"), also *Cuve*, which may be a corruption of the French word for copper (which see), though a perhaps much more accurate derivation is from the word *cuvier* (pron. kuh-veh), to ferment, the *cuve* or copper being used for domestic brewing—pron. show-drong, *koov* or *kuuv*; Ger. *Wasch-kessel* or *der Grosse Kessel*—i.e. the wash(house) kettle or the large kettle—pron. vash-kess-ell or derr gross-eh kess-ell.

Copper, in *Materials*. A native metal of vast use in the arts, the ore of which is found in this country chiefly in Cornwall. The derivation is curious, the Latin word being *cuprum*, and this from *æs cyprium*, or the brass of the island of Cyprus in the Mediterranean; and this probably from the ore of copper having been originally discovered there, or from the art of working it having been there first established. Syn. Fr. *le Cuivre*—pron. luh kweev-verr; Ger. *das Kupfer*—pron. dass koop-ferr.

Corbels, in *Masonry*. Projecting parts, with front face more or less ornamented, firmly "tailed" or built into a wall, and the tables or upper faces of which support or carry the ends of beams, or the principals of roofs, the arches of vaulted chambers, etc. Der. Latin *corbula*, a little basket. Syn. Fr. *Corbeau*—pron. kohr-boh; Ger. *Spannenkopf*—pron. spah-nenn-kopf (from *spannen*, to stretch across or span, and *Kopf*, a head).

Corbel Stones or Steps, in *Masonry*. The stones placed at gables, which rise in the fashion of steps in a stair—a feature distinguishing houses built in the Scotch castellated styles, and fine examples of which are met with in the Netherlands or Low Countries on the Continent (Belgium and Holland). (See *Gable Coping* for further description and synonyms.)

Cord, in *Joinery and Cabinet Making*. A circular band or small rope, made generally of hemp, cotton, or silk, as the window cords for supporting the sash weights, or for the blinds and cords used for window drapery. Syn. Fr. *Cordeau* (from *cordage* [kore-dajh], rope work, and this from *corder* [korr-deh], to twist or twine, and this again from the Latin *corda*, a string; also probably

from the word *cœur*, the heart, the core of a body)—pron. kore-doh; Ger. *die Schnur* (a line or cord)—pron. shnuur or shnoor. A measuring line is *Messschnur*, from *messen* [mess-enn], to measure). (See Measuring Line or Tape.) “Cord with tassels,” as used in window drapery: Syn. Fr. *Cordelière*—pron. kore-del-ee-air; Ger. *Schnur mit Quasten* (*Schnur*, a line, a string, a cord, *Quasten*, from *Quaste*, a tuft or tassel)—pron. shnoor mit kuas-ten.

Cordon, in Masonry. A term sometimes used to denote the edge of a stone in the exterior face of a building. It is purely French, having the above meaning—also a girdle, a cord, or string, or rope—pron. kohr-dongh.

Core, in Bricklaying. The brick courses or tiles brought out or projecting from the face of a wall, generally at the top, to afford a key or body for a cornice or other moulding in cement. Der. Latin *cor*, the heart. Syn. Fr. *Corps* (the body)—pron. korr; Ger. *Körper* (the body)—pron. koerr-per.

Corinthian Order, in Architecture. The third of the three orders of Grecian (see Grecian Style) and the fifth of the Roman architecture (see Roman Style). The chief feature of the Corinthian order is the richness of its ornamental details, which far surpass those of the other two orders. The shaft of the column is tall and slender, in striking contrast to that of the Doric order (which see); it starts from a deep base rich in mouldings. The “bell of the capital” is highly decorated, the chief feature of its ornament being the acanthus leaf (see Acanthus and Bell of the Capital) and small volutes. The entablature is deep and profusely decorated with mouldings, the features of which are the Modillions and Dentals (which see). Der. From the Latin *Corinthum*. Syn. Fr. *Ordre Corinthien*—pron. ohrd-err kohr-een-tee-eng; Ger. *Korinthische Ordnung*—pron. korr-in-theesh-eh ohrd-noong.

Corner Post, in Carpentry. The principal post in a timber structure, as a shed, placed at each of the four corners or return angles. Syn. Fr. *Maitre poteau* (*maitre*, a master, *poteau*, post or stake—literally “the master post” or chief support of the structure)—pron. may-terr pott-oh; Ger. *der Eckpfosten* (*Ecke* [ekk-eh], a corner, an angle, *Pfosten*, a stake, a post)—pron. ekk-pfoss-ten.

Corner Stone, in Masonry. The chief or principal stone in a building, more frequently known as the “foundation stone”; in this sense the following are the synonyms. Fr. *Pierre fondamentale* (*pierre*, stone, and *fondamental*, belonging to a foundation, and this from *fondation* [fong-dah-se-ong], a foundation, and this again from *fond* [fongh], the bottom)—pron. pee-airr fong-dah-mang-tahl; Ger. *der Grundstein*—literally “the

ground or lowest stone”—pron. derr grund- or grund-stine. For the term “corner stone” literally—that is, a stone at the angle or corner of a building—Syn. Fr. *Pierre angulaire* (i.e. angular stone, showing its two faces at the return)—pron. pee-airr ahn-gu-lair; Ger. *der Eckstein* (angle stone)—pron. ekk-stine.

Cottage, in Domestic Architecture. A small house containing but few apartments, generally situated in rural or suburban districts, but in the manufacturing districts and in the north of England applied also almost universally to the houses of the working-classes, even when situated in districts most densely populated. Syn. Fr. *Cabane* (kah-bahn), or the same word—*Cottage*—as ours, but pron. kott-azhj; though the term *la Chaumière* is perhaps the most generally used term—pron. lah show-me-err; Ger. *die Hütte* (hut)—pron. hue-teh. The Cottage Villa, or Villa Cottage (see Villa) is a cottage having internally larger accommodation, and externally greater pretensions to architectural design, than the ordinary structure known by this name. Syn. Fr. *Cottage orné* (*orné*, decorated or ornamented)—pron. kott-awjh or-nay; Ger. *das Landhaus* (*Land*, the ground or country, meaning a house in the country)—pron. lant-howws.

Countersunk, in Joinery, etc. When the head of a screw nail, for example, is flush, or its surface level, with that of the plate or material into which it is screwed or driven, it is said to be countersunk. To countersink a hole, a drill larger than that which would form or bore a hole of the diameter required for the nail to pass through is used at the upper surface or face of plate, and forms an angular or sloping-sided or dished hollow, into which the thickness of the head of the screw lies. For the term “to countersink,” Syn. Fr. *Fraiser un trou* (*fraiser*, to countersink, from *frais* (fray), fresh or new, and this from *fraîchir* (fray-sheer), to freshen or renew: equivalent to saying that the boring of the hole is begun anew, or that the hole is freshened up—that is, made larger; *trou*, a hole)—pron. frayze-eh uhng troo; Ger. *Ausreiben* (*aus*, out of, and *reiben*, to rub, to grate, to broach)—pron. ows-ribe-enn; or *Erweitern* (*weit*, wide or large)—i.e. to enlarge the hole—pron. err-vite-ern.

Coursed Masonry, or Coursed Rubble or Work. Building of a wall in which the stones are laid in regular courses, not irregularly as in rough or random rubble. Syn. Fr. *Maçonnerie par assises réglées* (*assises*, layers, and this from *asseoir* [ass-wahr], to set down, to lay, *réglées*, from *régler* [reh-gle], a rule or order, and *réglé* [ray-glai], arranged, from *reguler* [reh-gule-eh], to regulate)—pron. mass-on-reh par ass-eez

ray-galy; Ger. *die regelmässige Steinschicht* (*Regel*, a rule, *Masz*, a measure, *Stein*, a stone, and *Schicht*, a layer)—pron. dee reh-gell-mayss-igh-eh stine-sheecht or -sheecht.

Court, or Courtyard, in Domestic Architecture. The open space in which outbuildings are generally placed, immediately behind the house; otherwise, especially in towns, the back yard, or simply the yard. Syn. Fr. *Cour*—pron. koor; Ger. *der Hofraum* (*Hof*, a court, and *Raum*, a space)—pron. hof-rowm.

Crack or Crevice, in Materials, as in stone or wood, either existing naturally, or as caused by undue pressure, as in a wall. Syn. Fr. *Fente*—pron. fahnt, or *Lézarde*, a crack—pron. laze-ard; Ger. *der Bruch*, a breach or rupture—pron. bruuk, or *die Spalte* (*Spalte*, a fissure, a gap)—pron. dee spal-teh.

Cradle, in Carpentry. The timber framing for supporting masonry in building a dome or a vault, etc. Syn. Fr. *Armement échafaudage* (*armement* [ahr-meh-mang], fitting out, *échafaud* [eh-shah-foh], a scaffold or scaffolding)—pron. ahr-meh-mang eh-shah-fo-dajh.

Cramped, in Joinery. Boards, etc., squeezed or pressed together by the tool called a cramp; or in *Masonry*, stones joined together by iron cramps. Syn. Fr. *Pressé* (from *presser* [pres-seh], to press), or *Serré*, close (from *serrer* [serr-eh], to squeeze or press together)—pron. serr-eh.

Cross-piece, in Carpentry. A piece of timber or beam crossing from wall to wall, or placed transversely to another piece or part. Syn. Fr. *Traverse* (*traverser* [trah-verrs-eh], to cross)—pron. trah-verrs; Ger. *das Querstück* (*quer*, across, and *Stück*, piece)—pron. kuare-stueck; also *Querbalken* (cross-beam or bulk)—pron. kuare-bahl-kenn.

Cross-wall, in Masonry or Bricklaying. A wall, generally a dwarf or sleeper wall (which see), run across from one main wall to the opposite wall, or to an interior wall. Syn. Fr. *Mur en traverse* (*mur*, a wall, and *traverse*—see above)—pron. muhr ang trah-verrs; Ger. *die Zwerchmauer* (*zwerch*, cross or obliquely, and *Mauer*, a wall)—pron. zwairch-mough-err.

Crown, in Masonry or Brickwork. The highest point, as "the crown of an arch" or a vault. At the crown of an arch the "keystone" is placed (which see). Syn. Fr. *Couronne de voule*—pron. kour-on deh voot; Ger. *das Gewölbe*, arch, *die Krone*, crown—pron. das geh-voel-beh, dee kroh-neh. Der. From the Latin *corona*, a crown, and this from the Greek *koronē*, a garland—garlands, as of laurel, being the crowns with which victors were crowned.

Culvert, in Masonry and Bricklaying. A subterranean covered channel serving as a water-way, or sewer for drainage matter. It

is usually formed with vertical sides, an inverted arch at bottom, and a semicircular or segmental arch at top. Syn. Fr. *Ponceau*—pron. pongh-soh; *Conduit* (or *Aqueduc*) *souterrain*—pron. kohn-dwee (ack-dühk) soo-terr-rane—literally "an aqueduct under earth"). Syn. Ger. *der Durchzug* (if applied to sewerage)—pron. doorsh-tzoog—literally "a dirt (*durch*) passage or trough (*Zug*)"; if applied to a water-way, *die Schleusse*—pron. schloosh-aye or -eh, or *Abzugskanal*—pron. ahb- or awb-tzoog-canal—literally "a drain (*Abzug*) canal."

Cupboard, in Domestic Architecture. A recessed and enclosed space in which crockery and the odds and ends of a kitchen or other apartments are kept. Originally it was simply a board, generally placed at the angle of a room, on which the drinking cups were ranged, to be out of the way, and yet easily reached. Then more than one board was used, the boards being placed one above another; and ultimately, to keep the crockery or contents free from dust, or to conceal them from view, the boards were covered or enclosed by a door, or a door in two leaves or halves. Any enclosed recess, or small closet, is now called a cupboard, although this is done chiefly, if not only, in the case of the kitchen or living-room; a similarly enclosed space in another part of the house being called a Pantry, a Press, a Larder, or Store Closet (which see). The derivation of the word cup is from the Old English *cuppa*, a drinking vessel, and this probably from the Latin *cupa*, a tub or vessel for water. Syn. Fr. (for cupboard) *Buffet*—pron. bue-feh, probably a corruption of *buvette* (bue-vett), a place where drink or drinking materials are kept, and this from *boire* (bwahr), to drink, *buvant*, drinking; Ger. *der Speis-schrank* (*Speise*, food, and *Schrank*, a cupboard): this German word more closely applies to our larder—pron. spi-zeh-shrank; also *die Silberspinde* (*Silber*, silver, and *Spinde* [speen-deh], a cupboard or press)—pron. sil-berr-spin-deh; also *Silber-schrank*.

Cupola, in Architecture. A structure finishing a roof, as the covering for a bell, the termination of a dome. It is lightly and airily constructed; and the upper part is generally finished with a semi-spherical surface, sometimes having the form of an ogee. Syn. Fr. *Coupole*—pron. koo-pole; Ger. *Kuppel*—pron. koo-pell: *Kuppeldach* is a roof shaped like a dome, or hemispherical.

Curb, in Carpentry. The circular frame or boarding used in well-sinking, otherwise called a drum (which see), to retain the soil or resist its inward pressure while the excavation is being made and the sides filled in with brickwork or masonry. Syn.

Fr. Lunette de charpente (*lunette*, a seat, and *charpente*, timber framework)—pron. lue-nett deh sharr-pangt; **Ger. der Bohlenbogen** (*Bohle*, a board, a plank, and *Bogen*, an arch—rounded or circular board)—pron. derr boh-len-bog-en. **Der.** Our wood curb is from the French *courber* (koor-beh), to bend or set aside, and this from the Latin *curvo*, I bend.

Curb Roof, in Carpentry. Termed otherwise, from its inventor or designer, a "Mansard" (which see). A roof in which an apartment or room can be placed with vertical sides and flat ceiling, as distinguished from an attic or garret apartment, with its sloping sides following the slope of the roof. **Syn. Fr. Mansarde**—pron. mahn-sard; **Ger. Französisches Dach**—that is, a French roof—pron. frahn-tsöe-zish-ess dach.

Curbstone, in Road Making. The flat, narrow-edged stone which bounds or forms the outer edge of a footpath or pavement, dividing it from the main or central road way. **Syn. Fr. Bouteroue** (*bout*, the end, the tip, the edge, and *roue*, a wheel—literally "a top stone to keep off or guard the footpath from the wheels of the carriages using the road")—pron. boot-roo; also *Boutroue*—literally "the edge or tip stone of the road" (*rue*, a road or street)—pron. boot-rue; **Ger. der Radstösser** (*Rad*, a wheel, and from *stossen* [sto-sehn], to thrust or push aside—literally "a wheel-thruster," to throw off the wheel from the path)—pron. derr rahd-stoess-err. For the curbing of a well see "Steining."

Curling Stuff, in Timber. A peculiarity or defect in timber caused by the fibres curling or coiling round the boughs of a tree, at the point where they join the bole or trunk.

Curtail Step, in Joinery. The first step or tread (which see), or the lowest step of a staircase, with its termination—towards the well hole—finished with a curve. The name is derived from the resemblance of the curve to the curl or twist of the tail of a dog or cur. **Syn. Fr. Degré** (a step of a stair) *courbe*—pron. deh-greh koorb.

Curtain, in Cabinet Making or Upholstery. The drapery in various textile fabrics hung at the side of windows or at the side of a room door. **Der.** From the French *courtine* (koohr-teen), a curtain, and this from the Latin *cortina*, a curtain. **Syn. Fr. Rideau** (a screen, a curtain)—pron. reed-oh; **Ger. der Vorhang** (*vor*, before, and *Hang*, a thing hanging)—pron. derr forr-hang. "Curtain rod or pole" is the rod either of wood or iron along which the rings supporting the curtain slide in bringing it down so as to hang before the window or door. **Syn. Fr. Porte de rideau** (literally "the screen or curtain carrier")—pron. port deh ree-doh;

Ger. die Vorhangstange (*vor*, before, *Hang* [see above], hanging, *Stange*, a pole or perch)—pron. forr-hang-stang-geh.

Cushion or Cushion-piece, in Carpentry. A piece of timber to act as a cushion or buffer to resist or receive the pressure of another part of the framing. **Der.** From the French *coussinet* (kooss-see-nay), a small pad or cushion. **Syn. Fr. Coussin**—pron. koo-sang; **Ger. Kissen** (cushion)—pron. kiss-senn.

Cusp, in Architecture. The inner curves of arches in Pointed or Gothic architecture have frequently projecting parts, joining the line of arch by curves or arcs of a circle; these sometimes meet in a point external to the arch, but are generally terminated with a trefoil, rose or ball ornament. To those ornamented parts the term cusp is often applied. **Der. Latin cusps, a point. **Syn. Fr. Feuille**—pron. feul—literally "a leaf"; also *Lobe arrondé*—pron. lobb ah-ron-day—a rounded lobe; **Ger. Knopf**, a knob or button.**

Cut, in Carpentry and Joinery. As in a notch, a groove, a niche, a slit, a slot. **Syn. Fr. Entaille**—pron. ang-tah-ee-ill; also *Rainure*, a groove—pron. ray-nuhr; also *Coupure*, a slit—pron. koo-puhr; **Ger. der Schnitt**, incision, cut—pron. derr shnitt.

Cut Bricks, To, in Bricklaying. To divide bricks lengthways or across to form Bats and Closers (which see). **Syn. Fr. Couper les briques en règle or à la règle** (*couper*, to cut, *briques à la règle*, bricks according to rule—that is, as desired for the work in hand)—pron. koo-peh leh breeks ah lah rayg-el; **Ger. Ziegeln anhauen** (*Ziegel*, brick, *hauen*, to hew or cut)—pron. tzee-gehn ann-how-enn.

Cut Nail, in Carpentry and Joinery. A nail made or cut by machine, not hammered or made by hand. **Syn. Fr. Clou coupé** (*clou* [kloo], a nail, and from *couper*, to cut)—pron. kloo koo-peh; **Ger. Maschiennenagel** (*Maschiene*, a machine, *Nagel*, a nail)—pron. mash-ee-en-nah-gell.

Cutting, in Building. In earthwork, cutting through a hill or raised ground. **Syn. Fr. Tranche, a trench—pron. traghsh or trangsh, or *Déblai* (literally "clearing away rubbish")—pron. day-blai; **Ger. Durchstich**—pron. doorsh-teegh (see "ich" in Dissertation).**

Cylindrical, in Construction. Formed like a cylinder. **Syn. Fr. Cyindrique** (cylindric)—pron. seel-ahng-dreck; **Ger. Walzenförmig** (*Walze*, a roller—from *walzen* [valt-zenn], to roll, and *förmig*, shaped or formed)—pron. valt-tzenn-ferr-mich. **Der.** From the Latin *cylindrus*, a roller, and this from the Greek *kyllindo*, I roll.

Cyma Recta, in Architecture. A moulding, wavelike or undulating in form, like the line of beauty. It may be defined as two

curves of contrary flexure or bending, the upper curve being hollow or concave and the lower convex or rounded. Syn. Fr. *Gueule-droite* (*gueule*, mouth or jaws, and *droit*, right)—pron. goohl- or guuhl-drwat or -drwaht; Ger. *Kehlleiste* (*Kehle*, the throat or channel, and *Leiste*, a band or border).

Cyma Reversa. A moulding with the curves reversed or bending in the opposite way to that of the cyma recta—that is, with the upper part rounded or convex and the lower part hollow or concave. It is some-

times called the “ogee,” the Fr. syn. for which is *Talon*—pron. tawh-long or -logh. Syn. Fr. for cyma reversa *Gueule renversée*—pron. guuhl rang-verr-say; Ger. *Hohlleiste* (*hohl*, hollow, *Leiste*, band or channel)—pron. holl-lice-teh.

Cypress Wood, in Materials. The timber of the cypress tree. Der. Latin *cupressus*, from the Greek *kyparissos*. Syn. Fr. *Bois de cyprès* (*bois*, wood, *cyprès*, cypress)—pron. bwah deh see-pray; Ger. *Cypressenholz* (*Holz*, wood)—pron. see-press-sen-holtz.

D.

Dado, in Joinery. This term is usually employed to designate the wood panelling which runs round the lower part of the walls of a chamber, consisting of base mouldings, and above these a flat and high surface surmounted by a shallow cornice moulding. It may be described as a deep or high skirting board (which see). It is also used to denote the central part of a pedestal, which is the deepest or highest part, and which is flat on surface. Der. Latin *solidum*, a solid—in this connection, in the sense of being unbroken with mouldings, etc. Syn. Fr. *Dé* (a die or dice)—pron. deh; Ger. *Würfel* (a die or dice)—pron. veuhr-fell. (See Die.)

Dairy, in Rural Architecture. A building in which the milk is kept as it is taken from the cow, and stored up till it is required either for the making of butter or of cheese. Der. Presumably from the fact that the word “dey,” used in conjunction with that of servant, indicated the servant who attended to the milk. One well-known author of the eighteenth century states, indeed, that “dey” was in Old English an equivalent for milk. If so, dey-maid would mean milk-maid, familiarised or emphasized as dairy. Syn. Fr. *la Laiterie* (from *lait*, milk)—pron. la late-ree; Ger. *der Milchkeller* (*Milch*, milk, *Keller*, cellar)—pron. derr milch-kell-err.

Dais, in Architecture. In the middle ages, when the hall or dining place was a principal feature of a mansion or country house, a raised part was placed at one end, at which the master of the house, family, and his more honoured guests sat. This was called the dais. The term is also used to denote the canopy over the altar of a church, as well as the seat with a canopy over it placed in the centre and at back of the dais; used also now as indicating the raised part or platform at the upper end of an entertaining or banqueting room or hall. Syn. Fr. *Dais* (a canopy)—pron. dah-ees.

Dam, in Earthwork and Masonry. A mass of clay or stone work, placed transversely to or across a stream or river, to retain the water, or across a valley in order to collect

the water of a district or watershed (see Embankment). A mass of clay or soil used to enclose water, or confine it within certain bounds, as in part of a foundation, or in mixing up mortar. A dam is otherwise termed a dike, a mole, or a breakwater. Der. From the Danish *dam*, a pond. A dam is often made of boards or wooden planks, the spaces between being generally caulked or filled with clay to make the joints water-tight. Syn. Fr. for “damming”—the work or act of damming up—*Diguement* (from *digue*, a bank or sea wall)—pron. deeg-mang; Ger. *das Eindeichen* (from *ein*, into, and *Deich*, a bank or dike)—pron. dass ine-dych-enn. Syn. Fr. for a dam—*Serrement* (from *serrer* [seh-reh], to close, to grasp)—pron. serr-mang; Ger. *die Abdammung* (*ver*, away or out, and *Damm*, a dam or dike)—pron. ferr-dam-moong. For dam of clay, Syn. Fr. *un Massif de Glaise* (*massif*, solid or masonry work, and *glaise*, clay)—pron. mass-eef de glayze; Ger. *der Lettendamm* (*Letten*, clay or loam)—pron. lett-enn-dam. For a regularly built dam of brickwork or masonry, Syn. Fr. *Serrement en maçonnerie* (*serrement*, see above, *maçonnerie*, masonry, i.e. built)—pron. serr-mahng ahng mah-sone-ree. A very large dam or embankment is called in French a *Barrage*—pron. barr-ajh; Ger. *der Mauerdamm* (from *Mauer*, a wall)—pron. mough-err-damm.

Day, in Joinery. The lights of a window, that is, the glazed or glass-filled spaces between the mullions or sash bars, are sometimes called “days,” generally “lights”—as a two-light or a three-light window. Sometimes also termed “sheets”; this latter term generally, however, denoting the upper and lower divisions of a sash window divided by the middle or cross bar, upper and lower sheets. Der. From the Old English word *to-dæg* (*daeg*, a day). Syn. Fr. *Jour de fenêtre*—pron. jhoor deh fenn-eter; Ger. *Fensterlichtöffnung*—pron. fenn-sterr-leeght-oeff-nung.

Dead Colour or Ground, in Painting. A term generally used to denote that the paint or colour is left in its natural condition—that

is, unvarnished. Syn. Fr. *Couche en détrempe* (*couche*, bed, layer or surface, and from *tremper*, to soak or to wet)—pron. coosh ahn day-trahmp; Ger. *der Grund* (the surface or ground).

Dead Light or Dead Window, in Building. A false or sham window, in which the void within the window dressings, usually occupied by the window or glazed frame, is filled up with brickwork, masonry, or timber. Dead windows are employed to keep up the uniformity of external design of the building, but at parts at which no daylight is required in the interior.

Dead Shoar, in Carpentry. An upright piece of timber built into or fastened against a wall which is being repaired, in order to secure it during the work. *Der.* The word "dead" is from the Old English *deadod*.

Dead Wall, in Masonry or Brickwork. A wall which has its whole length or surface unbroken with any window, door, or other opening or void. Syn. Fr. *une mur sans fenêtre ou porte*—pron. uene muhr sang feh-neter oo pohrt; Ger. *die fensterlose Mauer* (*Fenster*, window, *lose*, less (windowless))—pron. dee fenn-sterr-los-eh mow-err.

Dead Wood, in Timber Work. Wood which has decayed or is decaying, otherwise termed rotten wood. Syn. Fr. *Bois pourri* (from *pourrir* [pooch-rear], to rot or decay)—pron. bwah poo-ree; Ger. *das vermoderte Holz* (from *vermodern*, to rot, to moulder, or decay)—pron. dass ferr-moh-derrt-eh holtz.

Deafening, in Carpentry and Joinery. The method adopted in floors which carry the ceiling of a room beneath or in the story below, to keep sounds or noises made in the upper apartment from being heard in the lower. The deafening material is generally rough mortar laid on a species of small platform of lath, the ends of the laths being supported on small ribs nailed to the inner surfaces or faces of the joists. *Der.* From the Old English, identical almost with our present word—*deafe*.

Deals, in Joinery. The boards or planks into which balks or logs of timber are cut. *Der.* From the German *Diele* (see below). Syn. Fr. *Ais de sapin*—pron. eh deh sah-pang; Ger. *Diele*—pron. dee-leh. The term "deal" is often employed to indicate, unless where specially named as below, that the timber is of the class known as "white" pine. For this the French syn. is *Bois de pin blanc* (from *pin*, pine or fir, *blanc*, white)—pron. bwah deh pang blang; Ger. *das Tannenholz* (from *Tanne* [tahn-neh], a fir tree)—pron. tann-enn-holtz. Deals of red pine, otherwise known as "Riga fir," Syn. Fr. *Sapin rouge* (*rouge*, red)—pron. roojh; Ger. *Rothtannenholz* (*roth*, red). Roods deals are deals not worked or dressed, but just as they come from the saw-mill. Syn. Fr. *Planches brutes* (*planche*, a plank

or deal, *brut*, rough, undressed, not planed)—pron. plangsh bruht; Ger. *das rauhe Brett* (*rauh*, rough, *Brett*, a board)—pron. dass row (as in our now) -eh brett. Deals are with us sometimes termed generally "deal boards," and a synonymous term is planks. Fr. Syn. for deal boards *Planche* or *Ais*, a board; Ger. *die Planke*—pron. plank-eh.

Decastyle, in Architecture. A porch or portico to a building which has ten pillars in front. *Der.* From the Greek *deka*, ten, and *stulos*, a pillar.

Decorated Style, in Gothic or Pointed Architecture. The latest and according to some authorities the perfect or true style of Pointed architecture. Its peculiarities are best seen in the window-heads of churches of the period, in which the tracery is either in waving curves or in combinations of geometrical forms, as quatrefoils, etc. *Der.* From Latin *decorare*, to beautify, and this from *decus*, beauty.

Decorator. An artist workman, who ornaments or decorates domestic structures or public buildings with designs in various styles and classes. The difference in detail between an artist, popularly termed a painter, and a decorator, is that the latter executes his designs on the large scale and in a less finished style than the painter, his subjects being as a rule what are known as "ornamental," consisting of curved and straight lines in endless combinations of form and figure; and if natural objects are chosen, these are usually conventionalised. In the case of the painter, his subjects are taken from nature, forming landscapes or drawings of the human form. Bearing in mind this distinction, we have for the Fr. syn. for decorator, *Artiste* or *Peintre au gros pinceau* (*peintre*, a painter, *gros*, large, *pinceau*, brush or pencil—literally "a painter or artist who uses or does his work with a large brush," the surfaces and lines being broad)—pron. peng-terr oh gro peng-so; Ger. *der Staffilmaler* (from *staffiren*, to garnish, dress, or decorate, and *malen*, to paint)—pron. derr staff -eer -mah -lerr. For derivation see Decorated Style.

Deflection, in Construction—as the deflection of a beam. The bending or sagging in the centre from the weight or pressure exercised by the materials or part of a structure which it supports. *Der.* From the Latin *flectere*, to bend, and *de*, from—that is, in the case of a beam bending away from the pressure. Syn. Fr. *Flexion* (bending)—pron. flex-ee-ong; Ger. *die Biegung* (bending, from *biegen* [bee-genn], to bend, to set in a curve)—pron. dee bee-guhng.

Demi-relievo, or demi- or semi-relief, in Architectural Decoration. Ornaments which project above the surface or height equal to half their diameter or normal height.

Der. From Fr. *demi*, half—pron. deh-mee. The Greek for half is *hemi*, the Latin *semi*. *Relievo* (from the Italian *rilevo*), sculptured or carved work projecting from or raised above the surface to which the ornament is attached—pron. rell-ee-ay-voh.

Demolition, in Builder's Work. A term used where old structures are being pulled down and the materials removed to make way for new buildings. Great care is required in carrying on the work of demolition in order to avoid accidents, and considerable skill to preserve in good condition what of the old materials may be valuable. *Der.* From the Latin *demolitio*, a demolishing or breaking or pulling down, and this from *demolior*, I break or pull down. The Latin for constructing or heaping up is *molior*, and *demolior* is doing the converse or contrary of this—that is, pulling down; for both, the primary word is *moles*, a heap or mass. Hence our term in marine engineering or harbour work, a "mole," which is a mass of stones founded or based in and rising above the surface of the water. Syn. Fr. *Débâtiment* (*bâtiment*, a building, and *dé*, un-, as *delier*, to untie)—pron. deh-batt-ee-mang; Ger. *das Niederreißen* (*nieder*, down, and *reißen*, to tear, to pull down)—pron. need-err-ice-enn.

Dentil, in Architecture. Small rectangular pieces or blocks, the length hanging vertically, cut in relief in the bed moulds of the cornices in the Ionic, Corinthian, and Composite columns or styles of architecture. Narrow spaces are left between the pieces, giving to the parts the appearance of a row of teeth. Syn. Fr. *Denticule* (from *dent*, a tooth or notch)—pron. dang-tee-koohl; Ger. *Zahnschnitt* (*Zahn*, a tooth, and *Schnitt*, a cut or cutting)—pron. tzahn-shnit.

Derby, in Plastering. The tool or implement, a two-handed float is so called. It is one of those technical terms the origin of which is now lost. It may be conjectured that its inventor was named Derby, or that it was first used at the town of that name. (See Dissertation.) Syn. Fr. *Aplanissoir travaillé avec deux mains*—that is, to level and smooth down plaster with a tool or appliance requiring two hands to work it (*aplanissoir*, a leveller, from *aplanir*, to level, to plane, *travaillé*, worked, from *travailler* [trah-vah-leey] to work, to labour, *main*, hand)—pron. ah-plah-nee-swahr trah-vah-leey avek deuh maing; Ger. *das Reibebrett, welches mit zwei Händen gehandhabt wird* (*Reibe*, a grater or rubber, from *reiben* [ribe-enn], to grate, to rub down, *Brett*, a board, and from *handhaben*, to handle)—pron. dass ri-be-eh-brett vell-shess mitt tzvi haen-denn geh-hand-habtwærd.

Derrick, in Construction. A timber framing or crane, by which heavy weights are lifted and swung round from point to point with a certain sweep or radius. This is an example of the curious modes in which

technical things are sometimes named, as alluded to in the Dissertation—a Tyburn hangman giving his name to the contrivance, the old gibbet having somewhat of the form of a modern derrick. Syn. Fr. *Chère*—pron n shave-err; Ger. *Pickfall*—pron. pick-fahll.

Design, in Building. This term is applied generally to the style in which the building is designed, but specially to a drawing or sketch in which this style is graphically shown. The term "drawings" or "set of drawings" is applied in practice to the various drawings in plan, elevation, etc., by which the building in various aspects is displayed. A complete set of drawings with details is distinguished by the term "working drawings." *Der.* From the Latin *designo*, I mark out, I define, *designatio*, marking out, designing. The French word *designer* is from this, and means to design or define generally. Syn. Fr. for design, indicating a sketch or drawing showing the style, *Tracement*—pron. trahce-mang; Ger. *der Aufriss* (from *Riss*, a sketch)—pron. derr owf-riss. A drawing or sketch or design so drawn that it may be worked from is sometimes termed a working design—in Fr. *Dessin d'exécution*—pron. deh-sang daix-eh-kuhse-ee-ong; Ger. *der Muster-riss* (*Muster*, a pattern or model, *Riss*, a sketch)—pron. derr moose-terr-riss.

Diagonal Brace, in Carpentry. A beam or the member of a framing placed at an angle in the strut in a roof-truss or a partition. *Der.* From Latin *diagonios*, and this from *diagonia* in Greek, an angle or line stretched from one angle of a figure to the opposite.

Diameter, in Construction. The measurement of any part which is circular in form or section. The length of the line which passes through the centre and joins the circumference at the opposite points. *Der.* From the Latin *diameter*, and this from the Greek *diametros*, a measure through. Syn. Fr. *Diamètre*—pron. dee-ah-mate-er. Outside diameter of a circular part, with a circular central aperture or space, "*d'extérieur*"—pron. dex-terr-ee-ooehr -uhr; inside diameter, "*d'intérieur*"—pron. dang-terr-ee-ooehr. Syn. Ger. *Durchmesser* (*durch*, through, and *Messer*, a measure). Outside diameter, "*die Aussenseite*" (from *aus*sen, out, and *Seite*, side)—pron. ow-senn-zite-eh; inside diameter, "*das Innere*" (from *innere*, inside)—pron. inn-err-eh.

Diaper Pattern, in Architectural Decoration. In which the ornament is generally disposed in regular arrangement over the surface, as in squares or lozenges, or varied in arrangement. Syn. Fr. *Diapré* (from *diaprer*, to variegated)—pron. dee-ah-preh; Ger. *das geblühtete Muster* (flowered or figured, and *muster*, a pattern)—pron. geh-bloohm-teh moos or -muhs-terr.

Diastyle, in Architecture. An arrange-

ment of pillars or columns in which they are placed at intervals the length of which is equal to three diameters of the columns. *Der.* From the Greek *dia-histemi*, I stand apart. *Syn.* Fr. *Diastyle*—pron. dee-ah-steel, also in the phrase on a *colonnes distantes* (distanced columns); Ger. *Weitsäulig* (weit, wide, and *Säule*, a pillar)—pron. vite-zoy-leegh.

Dic. The flat part between the base and cornice of a pedestal. (See *Dado*.)

Dig, in Excavating Work. Applied generally, the Fr. *syn.* is *Fouir*, to delve or dig. Specially, as to dig out the trenches for a foundation, *Creuser les fondements* (*creuser*, also to dig or delve, *fondements*, the foundations)—pron. kreuh-say leh fongd-deh-mangts; Ger. *den Grundgraben ziehen* (*Grund*, ground or earth, *Graben*, a trench or grave, *ziehen*, to draw)—pron. denn groond-grah-benn tzee-ane; to dig a ditch, *Creuser une fosse* (*fosse*, a ditch)—pron. krooh-se-uhn-foss; Ger. *einen Graben ziehen*—literally “to draw a ditch.” The act or work of digging is in Fr. *Creusement*—pron. kreuh-z-mang; Ger. *Ausgraben*. *Der.* of the English form, *dige* in the Danish, to dike or scoop out a pond.

Dimensions, in Construction. A term used to denote the measurements giving sizes of bodies. Dimensions are taken—first, for superficial measure or measure of surface, in two measurements, length and breadth, as 4 ft. 6 in. long by 2 ft. 3 in. broad, or 10 in. long by 3 broad—written thus: 4' 6" × 2' 3" or 10" × 3"; and secondly for cubical contents or measurement, in three measurements, length as 12 in., breadth or thickness as 8 in., and depth or width as 6 in., written thus: 12" × 8" × 6". *Der.* From the Latin *dimensio*, and this from the verb *dimetior*, to measure. *Syn.* Fr. *Dimension* or *Etendue*—pron. deemang-see-ong or ate-ang-duh (extent); Ger. *die Messung* or *das Mass*—pron. dee mess-oong. *Syn.* Fr. for “Superficial Dimensions,” *Dimension de Superficie* (surface)—pron. soo-perr-feece-ee-eh; Ger. *Flächenraum* or *Flächenmass* (*Fläche*, an extent [flaegh-eh]—pron. flagh-enn-rowhm, *Raum*, space)—pron. flaegh-enn-mahss. *Syn.* Fr. for “Cubic Measurements” or “Contents,” *Cubage*—pron. koo-bajh; also *Contenu Cubique* (from *contenir* [konn-teh-neer], to contain, to hold)—pron. konn-teh-nooh koob-eek; Ger. *Rauminhalt* (from *Raum*—see above—and *halten* [hahl-tenn], to hold)—pron. rowhm-inn-hahl; also *Kubikinhalt* (*kubik*, cubic)—pron. kooh-beck-inn-hahl.

Diminished Bar, in Joinery. The thinnest side placed to the interior of the room or edge of the sash-bar of a window.

Diminution, in Masonry, Joinery, etc. A term applied to the lessened or diminished size of one part of an object, as a tapering chimney stalk or a sloping retaining wall.

It means in such cases the batter (which see) or the tapering off. *Der.* From the Latin *diminuo*, I break or dash to pieces—that is, make less by breaking. *Syn.* Fr. *Retraite* (generally), or as in the batter of a wall, *Retraite d'un mur*—pron. ray-trayt; in Joinery, as splaying or taking off the arris, *Recoupement* (literally “cutting again”)—pron. reh-koop-mahng; Ger. *der Mauerabsatz* (*Mauer*, a wall, *Absatz*, a break). To “diminish” is to make one part of a piece of work less than another. *Syn.* Fr. *Diminuer* (to lessen)—pron. dee-min-you-eh; Ger. *schmälern* (to make less, diminish)—pron. shmall-ern (*schmal*, small).

Dining Room. The apartment in a house set apart specially for meals, chiefly the dinner; in large houses a smaller room, as the breakfast-room or parlour, is set apart for other meals of the day. The word *dine* is derived from the French *diner*, to take the chief meal of the day, dinner. *Syn.* Fr. *Salle à manger* (*salle*, a parlour or room, *manger*, to eat)—pron. sahl-ah-mang-jhay; Ger. *Speisezimmer* (*Speise*, food, and *Zimmer*, a room or chamber)—pron. spi-zeh-tzim-err.

Discharging Arch, in Masonry and Brickwork. An arch turned over an opening in a wall, as over lintels, to relieve the part below from the superincumbent pressure. *Der.* From the French *Décharger*, to unload. *Syn.* Fr. *Arc en décharge*—pron. ark ahng deh-sharj; Ger. *Entlastungsbogen* (*Entlastung*, discharge, and *Bogen*, an arch)—pron. ent-lass-tungs-boh-genn.

Discharging Pipe or Tube. In *Plumbing* this is the synonym or equivalent term for a “waste pipe”; in *Drainage work* it is the last tube in a series laid to or connected with the outfall, as a sewer, a ditch, a cesspool. *Syn.* Fr. *Tuyau de dégorgeement* (*tuyau*, pipe or tube, and from *dégorgier*, to clear out, to overflow, to scour out)—pron. twee-yoh deh deh-gorgsh-mang; Ger. *das Abflussrohr* (*ab*, from, *Fluss*, a stream, and *Röhre* [roh-reh], a tube)—pron. dass abb-flooss-roar.

Dish out, in Joinery. To form a coved ceiling or cove by means of wooden ribs. A wheel is said to be “dished out” when the spokes spread out from the rim as a part or outer edge of the nave. *Syn.* Fr. *Écantuer une roue* (“to cant a wheel”)—pron. eh-cahnt-you-eh uhn roo; Ger. *der Radstürzen* (*Rad*, a wheel, and *Stürze*, a pot lid)—literally “a wheel shaped like a pot lid,” which slopes up from the edge to the central handle.

Distemper, in Painting. A colour used for wall covering or decoration distinct from, or the opposite of, oil-paint. Whiten-ing, whitening or limewash mixed with “size” or a weak solution of glue is the simplest form of distemper painting—literally “a

water not an oil-colour." *Der.* From the Latin *temperies*, mixed or mingled in due proportion, as the colouring-matter and the water, and this from *tempero*, I divide or proportion or mix (temper) one thing with another, as hot with cold water. The Italian word *tempera* (a water-colour) comes directly from the Latin. Syn. Fr. *Peinture en détrempe* (*peinture*, painting, and from *tremper* [trahm-peh], to dip, to soak)—pron. pehng-tuuh ang deh-tramp; Ger. *die Temperamalerei* (from *temperiren* [temp-err-eer-enn], to temper, and *malen* [mah-lenn], to paint)—pron. tem-perr-ah-mahl-err-ey.

Dog-legged Staircase, in *Joinery*. A staircase which has no well-hole.

Dome, in *Architecture*. A roof like a cupola (which see), surmounting a building generally of a hemispherical outline or form, the interior forming a concave ceiling (see Coved Ceiling). *Der.* From the Latin *domus*, a house: so frequently did the cupola form a part of all the old churches in Germany and Italy, that this word *domus* gave the name to churches, as if, par excellence, *the house*. Thus in Germany a cathedral is almost universally termed a "Dom" (the term *Münster* is also used—our word minster), and in Italy the "duomo." The French synonym is precisely our word, with the "o" accented—*Dôme*, pronounced dohm. The German equivalent is *Kuppel*, a cupola (which see).

Domestic Gothic, in *Architecture*. A name given to modifications of the pure Gothic style (see Gothic Style) as applied to domestic structures, and which from its treatment of the characteristic features of the time is well entitled to the name which by high authority has been given to it of "debased" Gothic. The general aspiring or vertical features of the true Gothic are superseded by members of quite an opposite character. The arched openings are wide, and the arch curves low and flat, the four-centred arch being greatly used in this style in place of being pointed. The window openings are square-headed, and divided with heavy mullions, an approach to the Gothic style being obtained by joining the mullion heads by arches low and depressed, and these often of the cinquefoil class.

Door, in *Joinery*. The framing of wood which fills up or closes the door void or opening in the wall, hinged at one side to the door framing, and provided with lock or latch at the other side. Doors are of different kinds, as "ledged," "ledged and braced," and "panelled" in four and six panels. **A Lledged Door**. A simple and cheap form of door in which the boards or planks are laid edge to edge, or tongued and grooved, and secured by cross-pieces at top and bottom and sometimes at centre. Syn. Fr. *Porte pleine avec emboîtures* (*pleine*, full, *avec*,

with, *emboîtures*, cross-pieces)—pron. pohrt playne ah-veck awng-bwah-tuure; Ger. *mit Leisten gespundete Thür* (from *spunden* [spuun-denn], to groove together, *mit*, with, and *Leisten*, a bar, a ledge)—pron. meet lic-tenn geh-spunn-deh-teh tuur. **A Four-panelled Door**. A form of door in which the interior part is filled in with four panels. Syn. Fr. *Porte avec quatre panneaux* (*quatre*, four, and *panneau*, a panel)—pron. pohrt ah-veck kahterr-pahn-no; Ger. *die Kreuzthür mit vier Füllungen* (*Kreuz*, a cross, *mit*, with, *vier*, four, *Füllung*, a panel, from *füllen*, to fill up)—pron. dee kreuhtz-tuur mitt fear faihl-oon-genn. **A Folding Door**. A door made with two leaves or halves hung at the sides to the door casing, and closing at the centre of the opening or void. Generally used between two rooms when closed, dividing one from the other, or when open throwing them into one. Syn. Fr. *Porte à deux vantaux* (*deux*, two, *vantail* [yang-tah-eel], the leaf or wing of a folding-door)—pron. pohrt ah duu yang-toe; Ger. *Flügelthür* (*Flügel*, a wing)—pron. flueh-gell-tuehr. **Back Door**. The door at the back of a house which gives entrance to the yard or the back lobby, or to the kitchen. Syn. Fr. *Poterne* (literally "a postern")—pron. poh-tairn; Ger. *die Hinterthür* (*hinter*, behind, *Thür*, a door)—pron. dee hin-terr-tuehr. *The Front, Main, or Principal Door*. Syn. Fr. *Porte principale*—pron. pohrt prang-see-pahl; Ger. *das Hauptthor* (*Haupt*, head)—pron. dass howpt-tohr.

Door-case, Casing, or Framing, in *Joinery*. The wood lining to the void or aperture in the wall which the door closes on, and to one side of which it is hinged or "hung," as the technical term has it. This lining is nailed or secured to the "wood bricks" built into the side of the void or door aperture in the wall (see Brick). Syn. Fr. *Châssis de porte* (*châssis*, a frame—our "sash" comes from this, as also "chace," a recessed part)—pron. shah-see deh pohrt; Ger. *das Thürfutter* (*Futter*, a case, a lining)—pron. dass tuehr-foot-err. The door framing is surrounded externally at side and top with moulded work termed an Architrave (which see).

Door Handle, in *Joinery Furniture*. The knob or handle by which the door latch or bolt is turned. Syn. Fr. *Poignée de porte* (from *poing*, a fist, *poignée*, a handle, also a handful, which a handle generally is)—pron. poahng-neay; Ger. *der Thürgriff* (*Griff*, gripe or grip, a handle)—pron. derr tuehr-grif.

Door Hinge. The brass or iron hinge by which the door is secured at top and bottom to the door casing, and on which it swings to and fro when being closed or opened. Syn. Fr. *Pivot de porte* or *Pivot de peinture* (*pivot*, a pivot or pin, *peinture*, iron-work)—pron. pee-voh deh porte or peng-tuehr; Ger. *der*

Bandhaken (*Band*, a ribbon, *Haken*, a hook or clasp)—pron. derr bant-hah-kenn.

Doorway, in *Architecture*. The opening in the wall giving admission to the interior of a building. It is usually distinguished by some ornamental feature. The simple aperture or opening in the wall is termed a "door void." *Der.* See below; also from the Old English *дор*, a gate. Syn. Fr. *Porte*—pron. pohrt; Ger. *Thür*—pron. tuehr. This is almost the Greek form of the word, *thura*, a door.

Doric Order, in *Architecture*. This constitutes the first of the three orders of the Grecian and the second of the Roman style (see Grecian and Roman Styles). In the Grecian, the purest style, the order is characterised by the shortness and thickness of the shaft of the column, the absence of a base, the column starting at once from the ground, or from a massive stone platform termed a *Stylobate* (which see). The capital of the column is very simple, having few members or mouldings. The entablature is very deep and massive, the characteristic enrichment of which is the Triglyph with its drops (which see). The cornice is comparatively shallow, the characteristic member of which is the *Mutule* (which see). In the Roman Doric a base is added to the shaft, which is higher than in the Grecian Doric, and the other members are considerably modified. According to some writers the Grecian Doric had its origin in the trunk of a tree, timber in the rough having been first used for the building of huts. *Der.* From the Latin *doricum*. Syn. Fr. *Ordre Dorique*—pron. ohr-der door-cek; Ger. *Dorische Ordnung*—pron. dorr-eesh-eh ohrd-noong.

Dormer Window, in *Joinery*. A window the glazed surface or lights of which project vertically from the sloping side of the roof in which the window is placed. It is usually finished with a gable top, the ridge of which runs in to meet the slope of roof. *Der.* From the Latin *dormio*, I sleep—a dormer room being literally "a sleeping room" in the roof. Syn. Fr. *Lucarne*—pron. looh-karn; Ger. *Kopffenster* (*Kopf*, head, and *Fenster*, a window)—pron. kopf-fenn-ster.

Dormitory, in *Architecture*. A sleeping apartment, applied to a chamber so large that a number of beds can be made up in it, as in large or public buildings, to distinguish it from the bedroom of an ordinary house. *Der.* Latin *dormitorium*. Syn. Fr. *Dormitoire*—pron. dor-mee-twahr; Ger. *Schlafgemach* (*Schlaf*, sleep, and *Gemach*, room)—pron. shlahf-geh-mach.

Dots, in *Plastering*. The small patches of plaster daubed on the wall at various points to guide or regulate the floating rule in making screeds or bays.

Double-hung Sash, in *Joinery*. A window

in which both the upper and the lower sashes or "sheets," or "lights" or "days" are suspended with ropes passing over pulleys, and balanced by counterbalance weights.

Dovecot, in *Rural Architecture*. A house in which doves and pigeons are kept. Syn. Fr. *Colombier* (from *colombe*, a dove)—pron. kohll - ohm - bee - eh; Ger. *das Taubenhaus* (*Taube*, a dove)—pron. dass tow-benn-houss.

Dovetail Joint, in *Joinery*. A joint in which the tenon and the mortise are cut in the form of a triangle truncated or part cut off at the apex—so called from its resemblance to the fan-shaped tail of a dove. Syn. Fr. *Queue d'hironde* (*queue*, tail, *hironde*, a swallow)—pron. kuh-dee-rongd; Ger. *der Schwalbenwurz* (*Schwalbe*, a swallow, and *Wurzel*, a root)—pron. shwal-benn-voortz. **Dovetailing**: Syn. Fr. *Assemblage à queue d'hironde* (pron. ah-sang-blahj; Ger. *das Schwalben*. **Dovetailed**: Syn. Fr. *Édenté à queue d'hironde* (*édenté*, toothless, from *édenter*, to break teeth); Ger. *verzahnt mit Schwalbenschwanz* (from *verzahnen*, to indent with teeth [fer-tzah-nenn], *Schwalbe*, swallow, and *Schwanz*, a tail)—pron. ferr-tzahnt mit shwal-benn-shvanntz.

Drag, in *Joinery*. The term is applied to a door which drags on a floor or carpet surface of a room at which it opens. This may arise either from careless fitting in the first instance, or from the walls or floors settling irregularly. *Der.* From the Old English word *draggan*, to pull along, to get over obstructions.

Drag, in *Masonry*. A flat, thin steel plate with serrated or saw edge, used to work finely the surface or face of free-stone blocks for ashlar work.

Dragon-tie, in *Carpentry*. A piece of timber placed diagonally at the corner where the wall-plates join, and which supports or carries the lower extremity of the hip rafter in a hipped roof.

Drain, in *Sanitary Architecture*. The underground channel by which the liquid refuse or sewage of a house is led to the outfall, as to a sewer or a cesspool. A drain is distinguished from a sewer, first, by the smallness of its internal capacity, and second, by the fact that it serves to take away the sewage matter from the house; whereas a sewer is the common channel which conveys the sewage of several houses, or even of a district. Generally the drain passes through private property, as the site of the house with which it is specially connected; the sewer is carried along the street or road of the public property. Formerly drains were made of stone or brick; they are now almost universally made of earthenware, and the shape or form is tubular, but in some cases egg-shaped.

Der. From the Old English *drehnigean*, to drain. Syn. Fr. (tubular drainage) *Tuyau de drainage*—literally “drainage pipe or tube,” the word—drainage—being identical with ours in spelling and meaning, being borrowed from us, as house and town drainage was here practised long before it was so by the French—pron. twee-yoh deh drahn-ajh or -azgh. The Fr. syn. for Drain simply, is *Fossé d'écoulement* (*fossé*, a ditch or moat, indicative of the old or original form of drain, an open cutting in the soil, and *écoulement*, flowing, running, from *écouler* [eh-cool-eh], to flow out of, to run from)—pron. foss-eh deh kool-mahng. Syn. Fr. for Drainage, *Écoulement des eaux stagnantes*—literally “ditch for stagnant (in the sense of foul) water”—pron. eh-kool-mahng daze oh stag-nahnt : Ger. Syn. for drain tube or pipe, *das Drainrohr* (*Drain*, identical with our word, and *Rohr*, a tube, pipe, reed or hollow cane)—pron. drayn-rohr. Syn. for Drain, *der Abzugsgraben* (*Abzug*, drawing off, retiring, from *ab*, off, and *Zug*, a pull, draught, and *Graben*, a ditch, a place dug out, from *graben*, to dig, to trench)—pron. der ahh-tzoogz-grah-benn. Ger. Syn. for Drainage, *der Abzug*—pron. ahh-tzoog. In connection with the old system of town drainage still practised in rural districts is the cesspool, a deep pit or well acting as the place of deposit for drainage matters. (See the term Cesspool.) In this we stated that it was difficult to find a synonym or exact equivalent in French for the term, and we explained some points connected with it. The following is a term used for it; but, as will be seen, it also lacks precision, and is in fact very general in its application. The same applies to the German synonym. Syn. Fr. *Puisard* (a draining well)—pron. pwee-sarr; Ger. *die Senkgrube* (from *senken* [zen-kenn], to sink, to lower down, to deposit, and *Grube*, a hole; also *Senkloch* [*Loch*, a hole, a pit])—pron. senk-loch.

Draught. As in a horse pulling or dragging, or in lifting a weight, as a block of stone, by the derrick or guy with pulley and horizontal drag rope. Syn. Fr. *Tirage* (dragging or towing)—pron. teer-ajh—from *tirer*—pron. teer-eh—to draw or pull or drag; Ger. *der Zug* (draught, pulling)—pron. derr tzoog.

Draught, in Building Construction. A rough sketch or drawing of a construction or of a detail; the term also used as in a “chalk draught,” that is, a line the direction of which is indicated with chalk. “Saw draught,” the line or narrow opening made by the passage of a saw through or along the face of timber. “Rough draught” is a term frequently used to indicate an unfinished sketch or drawing. Syn. Fr. *Tracée* (from *tracer* [trah-say], to draw along, to

trace out); Ger. *der Riss* (a sketch or indication). In the sense of a saw draught, the Syn. Fr. is *Rentrage* (from *rentrer* [rahng-treh], to re-enter, to pass into)—pron. rang-trahgh; Ger. *das Einziehen* (from *ein*, into, and *ziehen*, to draw, to trace)—pron. ine-tseenn; also *das Passiren* (to pass into)—pron. pass-eer-enn.

Draughtsman. One who draws or prepares the drawings, technically called the plans, required in Building Construction. *Der.* Draught is from the Old English *dragan*, to draw. Syn. Fr. *Dessinateur*—pron. dess-seen-ah-toooh; Ger. *Zeichner*—pron. tzi-che-nerr.

Drawer, in Joinery and Cabinet Making. A box or receptacle passed into—or sliding in and out of—a recess, as in a table, a chest of drawers, a kitchen dresser, or the like, the front only of which is exposed when the drawer is in its place. This part is generally of a valuable wood—or painted—the back receptacle or box being made of ordinary wood. Syn. Fr. *Tiroir* (from *tirer* [tee-reh], to draw, to stretch out)—pron. teer-wahr; Ger. *der Auszug* (*aus*, out of, *Zug*, pull, drag)—pron. ouss-tzoog.

Drawing Board. The rectangular board with sides and ends at right angles to each other, with edges perfectly true, and surface flat, on which the paper is fastened for preparation of the drawings. Syn. Fr. *Planchette* (a little board)—pron. plang-shett, also *Planche* (board) *à dessin*—pron. plangsh ah dess-ang; Ger. *das Reissbrett* (*reissen*, to sketch, and *Brett*, a board)—pron. rice-brett.

Drawing Pen. An implement with two steel blades and fine or sharp points or edges, the distance between which is regulated by a small set screw, and this gives an ink line of the desired breadth or thickness, the ink being supplied between the adjusted blades. Syn. Fr. *Tire ligne* (from *tirer*, to draw, and *ligne*, a line); Ger. *Reissfeder* (*reissen*, to sketch, and *Feder*, a pen)—pron. rice-feh-derr.

Drawing Room. Formerly “withdrawing room.” When the ladies of the household wished to withdraw from the dining hall or room, the apartment to which they retired was so called. In style of decoration and in fittings, furniture and nick-nacks, it is essentially the ladies' room of the house. Syn. Fr. *Salon* (hence our saloon)—pron. sah-long; Ger. *das Gesellschaftszimmer* (*Gesellschaft*, company, and *Zimmer*, a chamber or room,—literally “the company room”)—pron. dass geh-zell-shafts-tzim-merr.

Drawings required in Building Construction are of four classes: “Plans,” “Elevation,” “Sections,” and “Details,” (which see under separate terms). To these, as in the case of domestic structures and public buildings, a fifth class is sometimes added, namely “Perspective.” Syn. Fr. (singular, a drawing) *Un dessin*—pron. uhn dess-sang; Ger. *der Riss*, or *Plan* (*Riss*, sketch, *Plan*, design), or

Zeichnung (a delineation)—pron. derr riss, plan, tziche-noong.

Dress, in Masonry. To dress stones is to tool or prepare their surface according to the class of work required, as in picked, tooled, rusticated, and rubbed or ashlar work. The word is derived directly from the French verb *dresser*, which means to arrange or put in order, as to trim a tree, tool a stone, arrange a table, etc.; or, in the English sense, to dress a garden, but not in the other English meaning of the term, that is, to put on one's clothes, the French synonym for which is *s'habiller*—i.e. to clothe oneself (pron. sah-bee-eh). The Latin equivalent of the term "dress" in the technical sense is *dirigo*, I set in order or I put things straight, the latter meaning having a direct application to the dressing of stones. Syn. Fr. (not from the verb *dresser*, but from *tailler*, to cut, carve, hew, dress in the sense above named, viz.) *Tailler les pierres* (to cut or hew stones, *pierres*)—pron. tahl-yeh lay pee-aire; Ger. *den Stein behauen* (*Stein*, a stone, and *behauen*, to hew, to cut)—pron. stine be-how-enn. Considered as a special trade, a dresser of stones or a stone hewer, the Fr. Syn. is *Tailleur* or *Piqueur* (from *piquer* [pee-kay], to prick)—pron. pee-qurr. This name is given from a peculiar kind of work—a picking or pricking—done in dressing stones. It is more applicable to the work of the quarryman in preparing stones than to that of the general stonemason, with whom the other term used, namely, *Tailleur*, is more closely connected, which is derived from *tailler* (see above). Syn. Ger. *der Steinhauer* (from *hauen*, to hew [howenn], and *Stein*, a stone)—pron. derr stine-how-err.

Dressings, in Bricklaying or Masonry. When a building is constructed with brick the ornamental parts surrounding the voids—door and window—made of stone are called the dressings. The same term is applied, though in a somewhat less definite way, to the ornamental parts of windows in stone-built houses. It is the dressings to the doors and windows which largely give the architectural character to the window, or, in other words, indicate the "style" in which the building is designed.

Drift, in Masonry. The horizontal or lateral thrust or pressure exerted by an arch upon the piers.

Drill, in Construction. To bore a hole in stone or metal by a drill or boring machine. Der. From the Old English word *thirlan*, to perforate (from *thirl*, a hole), or from the German *drillen*). Syn. Fr. *Percer à forêt* (*percer*, to pierce, *forêt*, a borer—from *forer*, to bore)—pron. perseh an foreh; Ger. *der Bohrer* (the borer)—pron. derr boh-rerr (see Auger).

Drips, in Plumbing Work. Used in form-

ing gutters and flats in roof work. The "drips" are formed at the joints of the lead sheets or parts of sheets by turning up the edge of one piece and dressing the edge of the other piece over it.

Drip-stone, in Architecture. A moulded projecting part thrown over doors and windows to throw off the drip or drop of the rain. It forms the outside member or architectural feature of the "dressing," and the sides are usually terminated at the ends with ornamental parts, as knobs, rosettes, etc. The term is obviously a corruption of "drop," which is derived from the Old English word *dropa*, a drop. Syn. Fr. *Larmier* (from *larme*, a tear [drop])—pron. lahr-me-eh; Ger. *Kranzleiste* (*Kranz*, a wreath, a crown, or a garland, and *Leiste*, a band or "head-course")—pron. krahntz-lice-teh. English synonyms or other names for the terms "water table," "label," and "weather moulding."

Drive, To, in Carpentry and Joinery. Forcing in by impact or by the blows of a hammer or mallet one body into another, as a pin or nail, is known as driving. Der. The word "drive" comes from the Old English *drifan*. Syn. Fr. *Forcer* (for-seh), to force or compel; also *Pousser* (poo-seh), to push or thrust; also *Ficher* (fee-sheh), to drive in or to fix by driving in; also *Mener*, (meh-neh), to lead into, to drive; also *Enfoncer* (ahng-fohng seh), to thrust, to drive in; Ger. *Eintreiben* (*treiben*, to drive, to push in—pron. tribe-enn); also *schlagen*, to strike, to beat (*shlah-gen*). To drive in a pin or trenail, as in carpentry work: Syn. Fr. *Enfoncer* (ou [or] *Chasser*, ou *Pousser*, ou *Ficher*) une cheville (*shay-veel*, a peg); Ger. *einen Bolzen* (a bolt, a wedge) *treiben*—pron. ine-en boltz-en tribe-en. To drive in a nail: Syn. Fr. *Forcer* (ou *Ficher*, ou *Pousser*) un clou (a nail)—pron. forr-seh uun klooh; Ger. *einen Nagel* (a nail) *eintreiben*—pron. ine-enn nah-gaell ine tribe-ane. To drive in with a hammer: Syn. Fr. *Enfoncer avec un marteau*—pron. ahm-fohn-say aveck uun marr-toe; Ger. *Mit einem Hammer eintreiben*.

Drops, in Architecture. Otherwise known as guttæ—small projecting and conically-shaped parts placed below the triglyph of the entablature of the Doric order. Syn. Fr. *Gouttes*—pron. goott (this from the Latin *gutta*, a drop); Ger. *Tropfen*—pron. trop-fenn (a drop).

Drum. (See Curb.)

Drying Oil, in Painting. Boiled linseed-oil is an oil which quickly sets or dries on a painted surface—it becoming glossy, glutinous, tough, and hard. Syn. Fr. *Huile siccative*—pron. weal seek-ah-teeve (from *sec*, dry, and this from Lat. *siccare*, to dry [see-karr-eh])—*siccité* is dryness [seek-see-tay]; Ger. *Oelirniss* (*Oel*, oil, *Firniss*, a varnish)—pron. oehl-fear-niss.

Dubbing-out, in *Bricklaying and Plastering*. Making an uneven surface fair or uniform by means of tiles, so as to form an even surface for plastering.

Duchess Slate, in *Slating*. A special size of slate generally obtained from the Welsh slate quarries; hence the Syn. Fr. *Ardoise de Galles de première qualité* (slate of Wales)—pron. ahr-dwaze deh gahl deh preh-mee-air kal-ee-tay. The dimensions are, or size of a Duchess slate is, 24 inches by 12; Ger. *die erste* (the first) *Sorte* (kind or quality) *walliser* (Welsh) *Schiefer* (slate)—pron. dee ers-teh zorr-teh vall-eece-err shee-ferr.

Dung Pit or Manure Pit, in *Farm Architecture*. A pit or excavation lined with brickwork or masonry set in cement at bottom and sides, so as to keep in the liquid manure which percolates through and

passes from the solid dung. In well-arranged dung-pits there is a tank built at one end, to which the floor or bottom of the pit slopes, so that the liquid passes into the tank, from which it is pumped out as wanted. Syn. Fr. *Fosse à Fumier* (*Fosse*, a pit or ditch, *Fumier*, dung, manure)—pron. foss ah fooh-mee-eh. (See Cesspool for a note on this term.) Ger. *das Düngerloch*—pron. dass dueng-err-loch; also and more generally *Düngerstelle* (*Dunger*, dung or manure, *Stelle*, a place, a spot).

Dwarf Wall, in *Masonry or Brickwork*. Otherwise a sleeper or cross-wall, or low wall in the basement which supports the joists. Syn. Fr. *Mur en traverse*—pron. muuhr ang trah-vaire; Ger. *die Zwerch-mauer* (*zwerch*, across)—pron. dee zvairch-mow-air.

E

Earthwork, in *Building*. Digging, excavating, and setting up earth or soil. Syn. Fr. *Terrassement* (from *terrasser* [terr-ahs-eh], to dig out soil, and this from *terre*, earth, ground or soil)—pron. terr-ahs-mang; Ger. *Erdschüttung* (*Erde*, earth or soil, and *Schutt*, rubbish)—pron. erd-shuet-oong. Der. The word "earth" is from the Greek *erd*, earth; it is met with also in the Old English word *eard*. The primary root of the word is the Sanskrit *ira*, and this from *ar*, to plough, as if the earth or soil was the only thing ploughed. "To execute the earthwork" is a phrase sometimes used in specifications, although the usual expression is to "dig out and excavate." In this the French synonym is *Terrasser* (see above); Ger. *In der Erde arbeiten* (*arbeiten*, from *Arbeit*, work, performance)—pron. in dare err-deh arr-bite-enn. To take the edge off a board or stone is synonymous with taking off the "Arris" in "chamfering" (which see). The French synonym is *Emouser* (meaning to dull, to deaden)—pron. eh-mooss-eh; Ger. *Stumpf machen* (from *stumpf*, dull, blunt, and *machen*, to make)—pron. stoumpf mack-enn.

Easing, in *Joinery*. Taking a thin shaving or cutting off a part, to admit of its being easily adjusted in a certain position or passed into a certain space. "Easement" is the amount of easing. Syn. Fr. *Paroi*—pron. parr-wah.

Eaves, in *Carpentry*. The finishing at the outer edge or margin of a roof which projects over or beyond the wall, the object being to carry the water so that it will drip or drop clear from the surface of the wall. If the water is not allowed to drip or drop, it is collected in a channel termed an eaves gutter, and this has a slope or inclination to

a certain point at which the "down spout" leading the water to a drain or cistern is fixed. The Latin equivalent is *deliquicere*. Der. From the Old English *efese*. Syn. Fr. *Cheneaux*—pron. shen-oh; eaves, singular, *cheneau* (from *chenal*—pron. sheenn-ahl, a channel), *de l'eau*—pron. deh loh, water); Ger. *Wasserrinne* (*Wasser*, water, and *Rinne*, a trough or channel)—pron. vass-err-rin-neh; also *Traufrinne* (*Trauf*, drip, and *Rinne*, a channel or trough)—pron. trowf-rin-neh.

Echinus, in *Architecture*. The egg and dart ornament, a distinguishing feature in the capital of the Ionic Order or Style. Syn. Fr. *Echine*—pron. eh-sheen; Ger. *der eirunde Zierath* (*das Ei*, an egg, and *Zierath*, ornament or decoration)—pron. eyeh-roon-deh tzeer-ath.

Edge, Brick on, in *Bricklaying*. In work of this kind—as in forming the last or coping course of a brick wall—the bricks are laid on their narrowest side or edge. (See Brick on Bed.)

Edge, in *Building Construction*. The margin or outer line or part of an object. Der. From the Old English *eeg*, an edge. Syn. Fr. *Lame*—pron. lamb; Ger. *die Ecke* (edge or corner)—pron. dee eck-eh; also *die Schürfe* (sharpness, acute, near angle)—pron. dee sher-feh.

Edging, in *Carpentry*. Reducing the edges of rafters or ribs so that they will all range in one place, or in a curved surface.

Egg Moulding, in *Architecture*. An ornamental surface of the shape of an egg. The egg-formed parts are generally divided by an ornament resembling a pointed dart-like weapon—hence the term "egg and dart" ornament. Der. From the Old Eng-

eg. Syn. Fr. *Moulure en Oeuf et Dard* (*moulure*, a moulding, *œuf*, an egg, and *dard*, a dart)—pron. mool-uhr ang uhf eh dahr; also *Oves* or *Ovicule* (oh-vee-kuhl); Ger. *Sims mit Ei und Pfeil* (*Sims*, a moulding, *Ei*, an egg, and *Pfeil*, a dart or arrow)—pron. zims meet eye oond pfile; also *Eierpfeil* (i.e. an egged moulding)—pron. eye-err-pfile.

Egyptian Style, in Architecture.

Generally admitted to be the parent of all succeeding styles. The Etruscans borrowed from the Egyptian, the Greeks from the Etruscan (although they ultimately formed a style in itself unique for the purity of its design), the Romans from the Greeks; the Basilican and Lombardic followed the Roman style, and so on. The great characteristic of the Egyptian style is the massiveness of the general structure and the imposing size of the details chiefly in columns or pillars. These are often of enormous dimensions, both in height and diameter. The capitals are always conventionalised forms of the Egyptian plants, with details furnished by the leaves, the shaft being conventionalised forms of trees and shrubs indigenous to their country.

Elbows of a Window, in Joinery. The side panels—corresponding to the dado of the room—under the shutter boxes.

“Elbowed.” This term is applied to a part of construction which is bent, one part being at an angle to the other. *Der.* From the Old English word *elboga*, the elbow. Syn. Fr. *Coudé* (from *couder* [koo-day], to bend, or from *coudoyer* [koo-day-eh], to elbow)—pron. koo-day; Ger. *Gekniet* (from *Knie*, a knee)—pron. geh-kneet.

Elevation, in Architecture. The front face or façade (which see) of a building; it means literally the vertical face of a building on any side, so that there are side or end elevations and a back elevation. In drawing the term means the projection or drawing of one of the vertical faces from roof to ground level, in which the peculiarities of the style or design are displayed. *Der.* From the Latin *elevare*, to raise from, and this from *elevo*, I lift. Syn. Fr. *Elevation*—pron. eh-lay-vah-see-ong (from *elever* [eh-lay-vay], to lift or raise; Ger. *der Aufriss* (*auf*, in or upon, and *Riss*, a sketch)—pron. owf-riss.

Elizabethan Style, in Architecture. So called from the fact that it originated, or at least fine examples of it were raised, during the reign of Queen Elizabeth. It is not easy to describe its characteristics without the aid of illustrations. In one sense it may be called a debased Gothic, although this term is more strictly applicable to the style sometimes termed the “Jacobin,” which immediately followed it. In the Elizabethan style the windows are generally

square-headed, and often divided into two and sometimes three lights, with ornamented quoins and heads. Characteristic features are the gables and the chimneys. The gables are in outline formed of a combination of curves with horizontal and vertical lines, and sometimes with angular or sloping lines. The chimneys are often clustered and richly ornamented. The cornices are deep, and finished often with pedestals surmounted by vases, the spaces between which are filled up with open carved or fret work. Where arches are used they are generally semicircular.

Elm Timber, in Materials. The wood or timber of the forest tree known as the elm (see “The Timber Dealer”). Syn. Fr. *Bois d’Orme*—pron. bwah dorm; Ger. *Ulmenholz* (*Ulme* [ool-meh], the elm)—pron. oohl-menn-holts.

Embattlement. See the term “Battlement.”

Emboss, in Building Construction. To carve in relief or raised. *Der.* From the French *bosse*, a knob or projecting part. Syn. Fr. *Relever en Bosse* (*relever*, to raise or lift)—pron. reh-leh-vay; Ger. *Erhabene Arbeit machen* (from *erhaben*, raised or elevated, *Arbeit*, work, and *machen*, to make)—pron. air-hah-beh-neh ahr-bite mack-enn.

Embrasure, in Architecture. The voids, spaces or intervals between the solid vertical parts of a Battlement (which see). Any opening in a wall which has its opening in the interior face larger than that on the exterior face. This makes the sides of the embrasure bevelled, splayed, or sloping. *Der.* From the French (*embrasure*), and this from *embraser*, to fire from or through. Syn. Fr. *Crenau*—pron. kray-no; Ger. *Schiesscharte* (*schiessen*, to shoot, and *Scharte*, a notch, a space, a port-hole)—pron. sheess-sharr-teh.

Encaustic Tiles, in Paving. The name given to tiles used for paving lobbies, passages, halls, etc., in which patterns simply, or more or less highly ornamented and coloured, are laid and burnt in through the action of the intense heat of a kiln. *Der.* The term is derived from the Latin word *encausticus*, burnt or highly heated, from the Greek word *egkaustikos*, and this from the two words *en* and *kaein*, to burn. Syn. Fr. *Tuile encaustique* (*tuile*, a tile)—pron. tweel ang-kose-teeek; Ger. *Farbig glasierte Kachel* (*farbig*, coloured, *glasierte* [from *glasirte*, glazed or vitrified on the surface, *Kachel*, a Dutch flooring-tile)—pron. farr-bich glah-zeer-teh kah-chel.

Enclosing Wall, in Masonry or Brick-laying. A wall—generally a nine-inch wall in brickwork—built round the margin or boundary of a space, such as that of a garden or the site of a house. *Der.* From the Latin *claudo*, I close or shut up, if not from the

Old English *clusa*, close. Syn. Fr. *Mur de clôture* (*clôture* [kloh-tuhr], an enclosure)—pron. muuhr deh kloh-tuhr; also *Mur Enceinte* (from *enceindre* [ahn-sang-derr], to enclose)—pron. muuhr ang-sahngt; Ger. *Mauerzaun* (*Mauer*, a wall, and *Zaun*, a fence)—pron. mough-err-tzown; also *Wandzaun* (*Wand*, a wall)—pron. vahnd-tzown.

End, in *Carpentry and Joinery*. The extremity of a beam or worked part. Syn. Fr. *Bout*—pron. boo; Ger. *das Ende*—pron. dass end-eh. To “end off” or finish a piece: Syn. Fr. *Couper bout à bout* (*couper*—pron. koop-eh, boot-ah boo; Ger. *Endweise schneiden* (*Weise*, fashion or manner [from *weisen*, to show, to teach], *schneiden*, to cut)—pron. end-vice-ehshnide-ane. “End to End” is a term used in building construction when the end of one piece is brought up to and made to lie against, or be joined to, the end of another piece. Syn. Fr. *Abouté* (from *bout*, an end)—pron. ah-boot-eh; Ger. *Ende am Ende*—pron. en-deh ahm enn-deh. The end of a piece of timber, as a beam, is generally synonymous with the “head.” In this sense the French synonym is *Bout d’un Poutre* (*poutre*, a beam)—pron. boo duhn poot-err; Ger. *Balkenkopf* (*Balken*, a beam, and *Kopf*, a head)—pron. bahl-kenn-kopff. The “end grain” of wood is the cross grain. The French synonym is *Veiné à bout*—from *veiner*, to vein (vay-nay); Ger. *geadertes Holz* (*geadert* [from *ader*, to vein])—pron. geh-ah-derrt-ess holtz.

English Bond, in *Bricklaying*. The species of “bond” (which see) in which each alternate course is formed with “header” bricks (which see), the intermediate course being made up of “stretcher” bricks—in other words the courses are alternately headers and stretchers.

English, Early, Style, in *Gothic or Pointed Architecture*. The distinguishing feature of the style is in the windows, the arched heads of which are lancet-shaped-curved. The lights or days or voids are long and narrow, and are frequently found in a combination of three—the central light or window being higher than the side lights. The mouldings of the arch are deep hollows and bold convex rounds; the pillars are clustered. It is the earliest of the true Pointed architecture, excluding the Norman style, which is not pointed, but semicircular in its arches. The date being the thirteenth century, it preceded the Decorated style (which see).

Entablature, in *Architecture*. That part of the “order” or style which crowns the structure and is carried by the column or pillar. It is composed of three parts: first, the architrave (which see), part resting immediately upon the abacus (which see) or upper member of the capital of the pillar or column; second, the fascia (which see),

above the architrave and between it and the upper member, the cornice (which see), which crowns or tops the whole. The term is also applied in mechanics to any framing supported by columns or pillars, or by framing, the upper part being termed the entablature. *Der.* From the Latin *tabulatum*, a table or stage, and the prefix *en*, to make. Syn. Fr. *Entablement*—pron. ang-tah-bel-mang; Ger. *Gebälk*, beams or joists—pron. geh-belk; also *Hauptgesims* (*Haupt*, head or top, and *Gesims*, a cornice or shelf)—pron. howpt-geh-zims.

Entasis, in *Architecture*. The curved bulge or swelling given to the shaft of a column at its central part, the swell in a baluster or newel post. Syn. Fr. *Renflement au Milieu de Colonne* (*renflement*, protuberance, *milieu*, middle or centre)—pron. rang-fel-mang oh meel-you deh kohl-onn; Ger. *Verstärkung in der Mitte der Säule* (*Verstärkung*, strengthening [by swelling out], *Mitte*, middle, *Säule*, column or pillar)—pron. ferr-sterk-oong een derr mit-teh derr zoy-leh.

Enter—Entered, in *Carpentry*. When a tenon in one piece of timber is passed into its corresponding mortise in another piece, it is said “to enter,” and when fixed in position “to be entered.” *Der.* From the Latin *intrare*, to enter, to go into. Syn. Fr. *Eventer une* (*mortaise* for example)—pron. eh-vang-tay oon morr-taise (see Mortice or Mortise); Ger. *In ein Zapfenloch* (see Mortise) *eindringen* (to enter by force, to penetrate)—pron. een ine tzapf-enn-loch ine-dreeng-enn.

Entresol, in *Architecture*. A low room, or a story or flat of low-ceilinged rooms or apartments, immediately above the ground floor and between it and the first floor or principal story or flat of the building. *Der.* From the French *entre*, between, and *sol*, the ground. Syn. Fr. *Mezzanine* (from the Italian)—pron. meddz-ah-neen; Ger. *Halbgeschoss* (*Halb*, half, *Geschoss*, a story of a house)—pron. halb-geh-shoss.

Erection, in *Building and in Carpentry Work*. A term frequently applied to denote some part connected with the main building, and to which latter the term “structure” is more correctly applied. Thus a scaffolding is an “erection” which is constructed to aid the building of the structure or main building. An outhouse is called an erection. Generally it may be applied to small structures as connected with or belonging to larger buildings or structures. To “erect” is to build or put up, and is applicable to all building work. *Der.* From the Latin *erigere*, to erect or set up, and this from *rigere*, to set straight or lead straight or erect—that is in the building sense vertical or plumb, as if there were no true erection without straight or erect building. Syn. Fr. *Eriger*—pron. eh-ree-jhay; Ger. *Errichten* (from *richten*, to

make or set straight or erect—i.e. vertical)—pron. er-reegh-tenn.

Escutcheon or Scutcheon, in Architecture. A shield for armorial bearings, put up in domestic architecture in some conspicuous part of the front. Syn. Fr. *Ecusson*—pron. eh-kooss-ong; Ger. *Wappenarms*—pron. vagh-penn-arms; also *Wappenbinde* (arms or label)—pron. vagh-penn-binn-deh. Der. The word is derived from the Latin *scutum*, a shield, and this from the Greek *skutos*, the hide of an ox or animal. As shields were covered with skins or hides, and as men began to fight before they made a vocabulary, the custom gave the name to the skin covering, and from thence the name of shield.

Escutcheon or Scutcheon, in Joinery. The small brass or iron plate which covers the keyhole of the lock, as of a door. It vibrates or swivels to and fro as it is desired to cover or uncover the hole, swinging or hanging vertically when left free from the screw nail which passes through its eye.

Excavation, in Foundation Work. The trenches and void spaces formed at the site of a building by digging out the soil in position, and according to a form determined by the plan or outline. Syn. Fr. *Fouille* (from *fouiller* [foo-e-yeh], to dig up or out)—pron. fool-yal. Another French synonym is precisely our word *Excavation*, the pronunciation only being different, as thus—in French, eks-kah-vah-see-yong; in English, eks-kah-vay-shun; Ger. *Grundgrube* (*Grund*, earth or soil [our word

ground], and *Grube*, a pit or a ditch)—pron. gruhud-groo-beh.

Extension of Work, in Building. A term generally used to denote that to an existing structure some additions are to be made. Extension, in the more ordinary sense, means lengthening out of an object, as extending a beam—that is to say, making it longer. To extend, to stretch out, to lengthen, is derived from the Latin verb *extendere*, to lengthen—from *ex*, from, and *tendere*, to stretch out. Hence our words tension and extension, which mean, literally, a stretching out. Syn. Fr. *Etendre*, to stretch out (from the same root)—pron. eh-tang-derr. For the term as applied to building the French word *Regner* is used. This means to rule or to run along (a wall for example)—pron. rahg-neh; Ger. *Ausdehnen* (from *dehnen* [day-nenn], to stretch, and *aus*, out)—pron. owss-day-nenn. Extension is the complete act of the work of extending, or the amount of the work done. The French word for this is precisely the same in spelling as ours, the difference being in the pronunciation only: thus, Eng. eks-tenn-si-un, ex-tensh-un; Fr. eks-tang-see-ong; Ger. *Dehnung* (from *dehnen*, see above)—pron. day-noong. In a more restricted sense, as in building, it is *Entlanggehen*—that is, to go along (*entlang*, along, and *gehen*, to go)—pron. ent-lang-gay-enn.

Extrados, in Architecture—pron. ex-trah-doss; Ger. *äussere Wölbung* (*äussere*, outwards, *Wölbung*, a vault)—pron. oy-sem-eh voel-boong.

F.

Facade, in Architecture. The front or front elevation of a building. The word is French—pron. fah-sawd. Syn. Ger. *Aussen* (*aussen*, outside or out of) *Vorder* (front or fore)—pron. ows-senn-for-derr; also *Stirnseite* (*Stirn*, the forehead or front, and *Seite*, side)—pron. steern-zite-eh; *Vorderseite* is very generally used.

Face of a Beam or Girder, in Carpentry. Not the flat side, but the narrow edge on which the joists are laid—the upper surface. Syn. Fr. *Face de poutre* (beam)—pron. fahss deh poo-terr; Ger. *die Balkenkante* (from *Balken*, a balk or log, and *Kante*, edge)—pron. bawhl-kenn-kahn-teh.

Face of a Wall, in Masonry and Brick-laying. Where a wall is faced with a material different from the back part, or the same material but of better quality and higher finish or style of work, as a brick wall faced with superior bricks, or a rubble wall faced with ashlar. Syn. Fr. *Faux* (false) *Parément* (see *Face*)—pron. foh parr-mang; also *Revêtement* (*re*, again, and *vêtement*, clothing)—pron. ray-vate-mang; Ger. *die*

Anblendung (from *an*, on or to, and *Blendung*, a mingling or blending)—pron. dee ann-blenn-doong.

Face or Facing, in Construction. The front or exposed surface of a body or part of construction. Der. Lat. *facies*, a face. Syn. Fr. *Parément*—pron. parr-mang; the feminine is *Face*—pron. fass; Ger. *Aussenseite* (*aussen*, out, and *Seite*, side); also *Stirnseite* (see above); also *Vorderfläche* (*vorder*, before, and *Fläche*, flat plain, or level)—pron. fodderr-fleck-eh. "To face a body"—that is, cover it with, or add a lining of material to it—is a term frequently used: for example, to face a wall with bricks or cement. But to face is applied to the taking off the ordinary or rough surface and making a smooth one, as to face a plank. To face a wall, the French synonym is *Revêtir*, to clothe or cover with—pron. ray-vay-teer; Ger. *Verkleiden* (to clothe in, disguise)—pron. ferr-klide-enn.

Face Mould, in Joinery. A mould for drawing or describing the form of or figure of the handrail of a stair, on both sides of

the plank out of the thickness of which the rail is cut. The face mould is so applied to the plank that when followed by the saw, on the mould being put in position the two side surfaces of the rail shall always be at right angles to the plan of the rail. Syn. Fr. *Cherche* (from *chercher*, to seek)—pron. shairsh; also *Calibre* (bore or size)—pron. kau-leeb-err; Ger. *die Schablone* (model, pattern)—pron. shah-blow-neh.

Facing Bricks, in *Brickwork*. The bricks used for facing work with. Syn. Fr. *Parement en Briques*—pron. pahr-mang ang breek; Ger. *die Verblendung mit Backsteinen* (*ver*, before, *Blendung*, blending, *backen*, to bake or burn well, as in bricks—superior bricks, *Stein*, a stone, or what we would call a clinker or well-burnt brick)—pron. ferr-blenn-doong mit back-stine-enn.

Facing or Face Board. Timber facing which may be moulded to conceal part behind, as the board at the gable of a house concealing ends of purlins, etc. This is sometimes called the fascia board (see *Fascia*). Syn. Fr. *Bois* (wood) *de* (of) *Garnissage* (decoration or garniture)—pron. bwah deh garr-nee-shawj, shazhe or shasge; Ger. *das Bekleidungs Brett* (*Kleidung*, clothing, and *Brett*, a board)—pron. beh-klide-oongs-brett.

Facings, in *Brickwork*. The bricks of a superior quality used to form the face of the wall.

Facings, in *Joinery*. The planed and finished boards which cover up or conceal the rough timbers or boards, or brick or stone work below. Syn. Fr. *Superficie antérieure* (or "the surface before")—pron. sooh-perr-fees-see ang-tare-yeur; also *Côté de devant* (*côté*, a side, *devant*, before, in front of)—pron. koh-teh deh deh-vangt; Ger. *Vordertheil* (*vorder*, before, *Theil*, part)—pron. for-derr-tile.

Fair, a term frequently used in connection with work: as a fair face of a stone, fair work—that is, good or full work in the sense of complete. Der. From the Old English *fagr*, just or right or beautiful. Syn. Fr. *Faire* (from *faire*, to do, to work, to build, to make complete)—pron. fayr; Ger. *Messe*—pron. mess-eh (from *messen* [mess-enn], to measure, to set fair or right).

Falling Moulds, in *Joinery*. Moulds applied to the vertical sides or faces of a handrail to guide the working of the back and under surface.

Fang of a tool, as of a chisel or gauge, the end generally square in section and tapering almost to a point, which is driven into the wooden handle or stock by which the tool is grasped in working. The fang is sometimes termed the "tail," more frequently the "tongue." Der. From the Old English *fæng-toth*, the tusk or root of a tooth. Syn. Fr. *Queue* (tail)—pron. kuuh; Ger. *der Heftzapfen* (*Heft*, a handle or haft, and *Zapfen*,

a pin or peg)—pron. derr heft-tzapp-fenn.

Fan Tracery, in *Architecture*. Best displayed in the vaulting (termed hence Fan Vaulting) of the latest style or development of the Gothic or Pointed architecture known as the Perpendicular. In this the surface is covered by ribs and ornate tracery, all of which converge to or diverge from a point, terminated by pendentives or drops. The finest, at least best known or most easily seen, specimen of fan tracery is in Henry the Seventh's Chapel in Westminster Abbey. Syn. Fr. *Resau* (a net or network) *décoratif* (decorated) *de Voûte* (vault) *en éventail* (a fan)—pron. reh-zoh day-core-ah-teef deh voote ang eh-vang-tile; Ger. *der Fächerstock* (*Fächer*, a fan, and *Stock*, a stick or stem)—pron. derr feck-err-stock.

Fan Vaulting, in which fan tracery is displayed. Syn. Fr. *Voûte à Nervures* (ribs, bands, or veins) *rayonnantes* (disposed in rays, or like the spokes or arms of a wheel)—pron. voot ah nerr-voor ra-yong-nangt; Ger. *Gewölbe* (arch or vault) *mit* (with) *fächerartigen* (*Fächer*, fan, and *artig*, like) *Rippen* (ribs)—pron. geh-voell-beh mit feck-err-ahr-teeg-enn reep-enn; also *Palmen-gewölbe* (from *Palme*, a palm-tree, spreading out like one)—pron. pal-menn-geh-voell-beh.

Farm Buildings, in *Rural Architecture*. The buildings, erected on a convenient part of the farm, in which the live stock are housed, the machines erected, and the produce stored up and prepared for the feeding of the animals or for sending to market. The buildings proper of the farm, as distinguished from the Farmhouse (which see below), are known by different names. In England the terms Homestall, Homestead, Farmery, and Farm Buildings are synonymous; while in Scotland the term "Farm Steading" is universally used—a term rapidly becoming assimilated in the English technical terms of farming. For the principal apartments of the farm, and the outside or exterior structures and conveniences closely connected with it. Der. of the word farm from the Old English *feorm*, food, and *feormian*, to produce or grow food. Syn. Fr. *Bâtiments de la Ferme* (*bâtiment*, a building, and *ferme*, a farm)—pron. bah-tee-mahng deh lah fairm; also *Ferme modèle* (fairm moh-dayl), model farm; Ger. equivalent for a farm-building *die Meiereigebäude* (from *Meierei*, a farm, and *das Gebäude*, the building)—pron. dee-my-err-eye-geh-boy-deh.

Farm House, in *Rural Architecture*. The house or residence of the farmer, containing accommodation and built in a style corresponding to the size or acreage of the farm or the means of the farmer. It is generally built in close proximity to the farm buildings. Syn. Fr. *Maison du Fermier* (*maison*, a house)—pron. may-zong duuh fairm-ee-aye;

Ger. *Meierei* (*Meier* [mye-err], a farmer)—pron. my-err-eye.

Fascia or Fasia, in Architecture. A broad band or fillet used in cornices or pedestals. Syn. Fr. *Plate-bande* (from *plat*, flat, and *bande*, a border or flat square moulding)—pron. plaht-bahnd; Ger. *die Binde* (a fillet or band)—pron. dee been-deh; also *der Streifen* (a stripe or streak)—pron. derr strife-enn.

Fasten or Fix, in Construction. As in securing one stone or beam to another, or two pieces of wood together. The general term in French is *Arrêter* to make fast, to stop)—pron. ah-rett-eh; also *Assurer* (to fasten, to make secure)—pron. ah-seuhr-eh; also *Fermer* (to shut, to enclose)—pron. fair-meh; Ger. *Befestigen* (*fest*, fixed or fast)—pron. bay-fess-tig-enn. To fasten two pieces of timber together with nails: the term in French is *Assurer avec un clou* (*clou*, a nail)—pron. ah-sueh-reh ah-veck uhn klo; Ger. *Annageln* (*Nagel*, a nail)—pron. ann-nah-geln. To fasten with glue: Syn. Fr. *Assurer avec colle forte* (*colle* [koll], a paste or glue—from *coller*, to stick, and *fort*, strong)—pron. ah-sueh-reh ah-veck koll fort; Ger. *mit Leim befestigen* (*Leim* [lime], glue), to glue; *leimen* (lime-enn)—pron. mit lime beh-fess-tee-genn. *Anleimen* is very generally used. To fasten or secure two pieces of heavy timber, as beams, with iron bolts: the French synonym is *Enclaver les poutres* (*enclaver*, to enclose, to wedge)—pron. ang-klah-veh leh pooters; Ger. *Balken verbolzen* (*Balken*, a beam, *bolzen*, to bolt or wedge)—pron. ball-kenn ferr-boll-tzenn. To fasten with a screw, to screw together: Syn. Fr. *Fermer à vis* (*vis*, a screw—veece)—pron. ferr-meh ah veece; also *Visser*—pron. vee-say; also *Serrer à vis* (*serrer* [serr-eh] to squeeze together, to clasp, to pinch)—pron. serr-eh ah veece; Ger. *Festschrauben* (*Schraube* [shrow-beh], a screw)—pron. fest-shrow-benn; also *mit Schrauben befestigen*—pron. mit (with) shrow-beh bee-fess-tig-enn.

Fastening, as of a door generally. Der. From the Old English *fast*, seizing or taking hold of. Syn. Fr. *Fixation*—pron. feex-ah-see-ong—from *fixer* (feex-eh), to fix; Ger. *Befestigen*—pron. bay-fess-tee-genn—from *fest* (fest), fast or fixed. "Fastening for a door," as a bolt: Syn. Fr. *Verrou de porte*—pron. verr-oooh deh port (*verrou*, a bolt—from *verrouiller*, to bolt)—pron. verr-ool-yai; Ger. *eine Thürstange* (*Thür*, a door, and *Stange*, a bar or bolt)—pron. tuerr stan-geh.

Feather-edged Boards, in Joinery. Boards which are thicker on one edge than the other. Formed in this way, they are used generally for covering roofs and forming the side walls of timber sheds. Syn. Fr. *Vive arête*—pron. veev arr-eh; Ger. *die scharfe* (sharp) *Kante* (corner, edge)—pron. dee sharr-eh kahn-teh.

Fence, in Wire-work, Trellis. Syn.

Fr. *Grillage* (wire lattice—from *grille*, a grate or barred surface) *en fil* (thread) *métallique, ou fil en fer* (iron)—pron. greel-leeahj ahn feel meh-tah-leek oo feel ahng fairr; Ger. *das Drahtgitter* (*Draht*, wire, *Gitter*, a fence)—pron. draht-git-terr.

Fence of a Wood Paling, in Carpentry or Joinery. Narrow boards generally six inches broad and of any desired height, usually six feet. Syn. Fr. *Echalier*—pron. eh-shah-li-eh; Ger. *der Pfahlzaun* (from *Pfahl*, a pale or post, and *zaun*, a fence)—pron. pfahl-tzoun.

Fence of Trellis or Lattice Work, in Garden Architecture. A fence made of narrow and thin slips or slats of wood, arranged in various combinations, as in squares, lozenge-shaped apertures, etc. Syn. Fr. *Menuiserie des Jardins* (from *menuiserie*, joinery, and *jardins*, gardens)—pron. menn-wees-ray day jhar-dang; Ger. *das Gitterwerk* (*Gitter*, trellis, lattice, and *Werk*, work)—pron. git-terr-vairrk; also *Gitterzaun* (*zaun*, a fence)—pron. git-terr-tzoun.

Fence, Quick-set, or Thorn Fence, in Gardening. A fence formed of plants, small trees, or tall bushes of the hawthorn. Syn. Fr. *Haie* (hedge) *vive* (live) *d'épines* (of thorns)—pron. hay veeve deh-peen; Ger. *die lebendige Dornhecke* (*lebendige*, living, *Dorn*, thorn, and *Hecke*, a hedge)—pron. dee leh-benn-dee-geh dorn-heck-eh.

Fence Wall, in Masonry and Bricklaying. A wall built to prevent encroachment upon a certain space of ground, as a garden or court fence. Der. From the Latin *defensio*, a defence, and this from *defendio*, I defend. Syn. Fr. *Mur* (wall) *de clôture* (fence or closing)—pron. muhr deh kloh-tooohr; also *Mur d'enceinte* (circuit, enclosure)—pron. muhr dang-sayngt (see Dissertation for *d'e*); also *Ceintre* (girdle or enclosure) *de Muraille* (a wall)—pron. sang-tre deh muhr-aeel; Ger. *der Mauergürtel* (*Mauer*, a wall, and *Gürtel*, a girdle or zone)—pron. mough-air-guirr-tell; also *Ringmauer* (from *Ring*, a ring)—pron. reeng-mough-err.

Fender, in Carpentry and Building. A piece of timber placed to guard or protect a part from injury. Syn. Fr. *Parefeuille* (from *parer*, to ward off or parry, and *feuille*, a leaf)—pron. parr-fweel; Ger. *das Schutzbrett* (*schützen*, to guard or protect, and *Brett*, a board)—pron. shoots-brett.

Fender, in Ironmongery (House). The iron guard placed on the hearthstone before a fire-grate to keep in falling cinders or ashes. Syn. Fr. *Gardefeu* (from *garder*, to guard, and *feu*, a fire)—pron. garrd-fugh; Ger. *das Kamingitter* (*Kamin*, a fireplace or fireside, and *Gitter*, bars or lattice)—pron. kahn-ecn-git-terr.

Fenders, in Masonry and Brickwork. Short or dwarf walls built in basement or

cellar story under front hearths of fireplaces in story above.

Fenestration, in Architecture. The art of arranging or disposing of the windows of a building. *Der.* Latin *fenestra*, a window. Syn. Fr. *Fenêtrage* (from *fenêtre* [fay-nay-terr], a window)—pron. feh-nay-trajh; Ger. *der Fensterbau* (*Fenster*, a window, and *Bau*, a building)—pron. fenn-sterr-bough; also *Fensterarchitectur* (that is, window architecture)—pron. fenn-sterr-ark-ee-tek-toorr.

Ferrule, in Ironmongery. A ring, hoop, or band of metal, generally of brass, passed round a part of woodwork to prevent it from splitting, as at the head of a pile, to which the term ring or hoop is more generally applied. Syn. Fr. *Virole* (curiously enough the Scotch name, "virril," for the article is almost identical with this)—pron. vee-roll; also, as in a "pile" ring or "hoop," *Frette* (a hoop) *de pilotis* (of a pile)—pron. frett deh pee-lo-tee; Ger. *das Eisenband* (*Eisen*, iron, *Band*, a hoop or ring)—pron. das eye-zen-band.

File Saw. A triangular-shaped file, the angles of which pass into the triangular spaces between the teeth of the saw. The sides or faces of the file are cut with fine teeth, and are used to bring the saw teeth to a fine edge by filing. *Der.* From Anglo-Saxon *feol*, to make smooth. Syn. Fr. *Lame triangulaire pour la scie* (*lame*, a blade, *scie*, a saw)—pron. lahm tree-abn-guh-lairr poor lah sea; Ger. *Sägefeile* (*Säge*, a saw—from *sägen* [zau-genn], to saw, and *Feile*, a file—from *feilen* [file-enn], to file)—pron. zay-geh-file-eh.

Filet, in Architecture. A moulding flat in face, a narrow band placed between two other mouldings so as to separate them and make them distinct from each other. It is also used separately as a narrow band or a ring, and is square in section, or flat at edges as well as on face. *Der.* From Latin *filum*, a thread. Syn. Fr. *Filet* (from *fil*, a thread, and the diminutive *et*—literally "a little or small thread")—pron. feel-eh; also *Quarre*—pron. kwar; also *Listel*—pron. lee-stell; Ger. *Binde*, a band—pron. bin-deh; also *Leiste*, band or border—pron. lice-teh.

Filling-in Pieces, in Carpentry. The short lengths of timber which fill in the angular spaces formed in framing, as in a hip-roof, or in a quartering partition. And as these spaces are angular, the filling-in pieces are of varying length.

Fine Set, in Joinery. A term applied to the working condition of planes of different kinds, in which the "irons"—i.e. the steel-edged cutting blades—are so adjusted that the smallest projection of the edge below the face or bottom surface of plane stock is secured; so that the plane takes off only the thinnest of shavings. Planes, as hand-

planes, are only so adjusted for fine work, and for finishing off the surface of wood.

Fine Stuff, in Plastering. The best quality of plaster—sometimes also termed stucco—used in finishing off the surface of plastered walls in order to make a fine smooth surface for the papering or the painting with which it may be decorated. Fine stuff is made of slaked lime, which is sifted through a fine hair-sieve so as to keep back all coarse particles. The sifted lime is then mixed into a plaster consistent enough to work easily with water; a sufficient quantity of hair to bind the whole together, and in some cases a small quantity of sand, is added.

Finial, in Architecture. The upper member, or that which terminates or finishes (final) a gable, a pediment, or pinnacle. It is a distinguishing feature of Gothic architecture, and is in some of its styles very florid or highly ornamented. *Der.* From the Latin *finalis*, and this from *fnis*, the end or termination of an object. Syn. Fr. *Panaceau* (from *panache* [pron. pah-nahsh], a plume of feathers, from the supposed resemblance of finials generally to a plume)—pron. pah-nah-soh; Ger. *blumige Kreuz* (from *Blume* [bloo-meh], a flower—*blumig*, flowery), and *Kreuz*, a cross, a finial often being in the form of a cross—pron. bloom-ig-kroyts.

Finishing, in Plaster-work. In three-coat work—that is, in which the plaster is made up of three layers or successive applications or thicknesses of plaster—the last or third coat is termed the "finishing." Should "fine stuff" be used for the third or finishing coat, to prepare the surface for papering or painting, the term "setting" is used in place of finishing. They are often indifferently used as implying the same thing.

Finish, To, in Building Work of various kinds. The term is frequently used, as in specifications, such as "finish and complete all work," etc.; the two terms here used being apparently tautological, as completion of work would seem to imply its being finished. A practical point of great importance is, however, involved in the distinction, as finished work may not be complete in the true workmanlike sense of the term—that is, of being done so thoroughly and so well that it cannot be done better. Work may be finished off "after a fashion," and that, as not being honest, cannot be said to be completed. The expression used in specifications as above is therefore quite justified, although it appears to be a mere repetition of the same idea. To finish generally is understood to be going through the final operation, as in dressing a piece of timber to form, say, the style of a door, the fine smooth surface is given with a plane "fine set" (which see). To finish painting a surface is to give the last coat, and if not "dead" to apply the varnish.



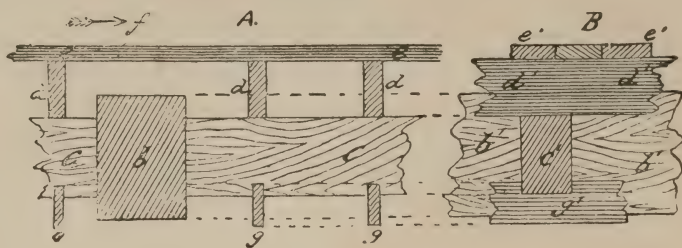


Fig. 1

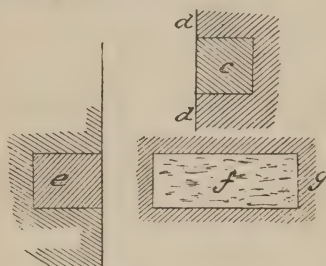
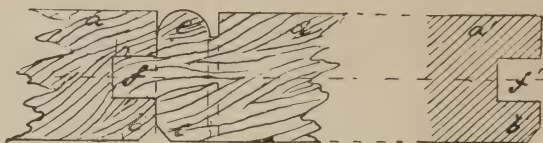
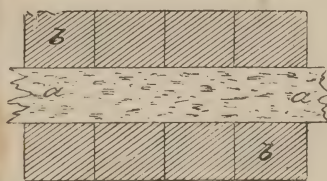


Fig. 4



Fig. 3

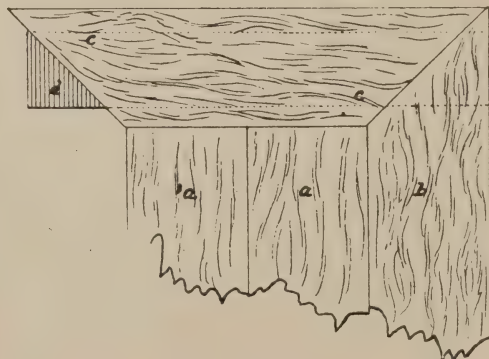
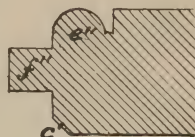


Fig. 2

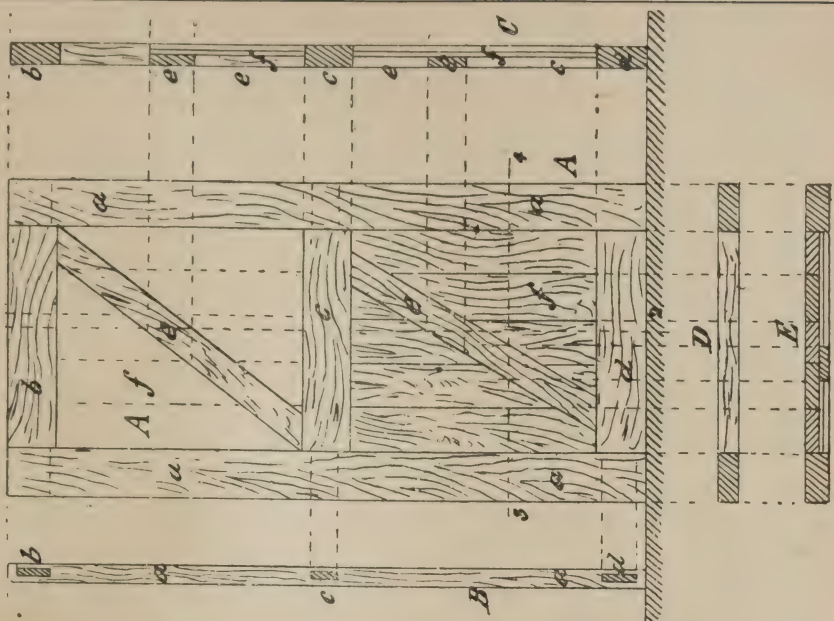


Fig. 1

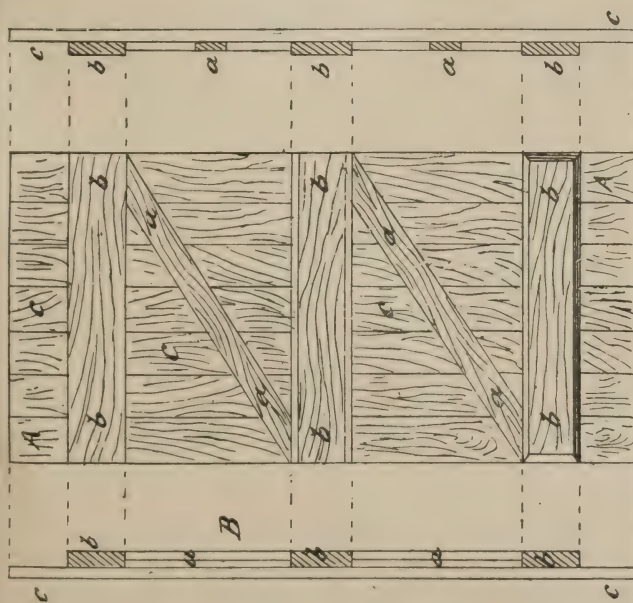


Fig. 2

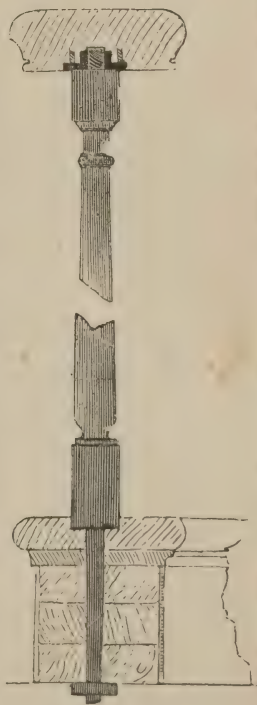


Fig. 3



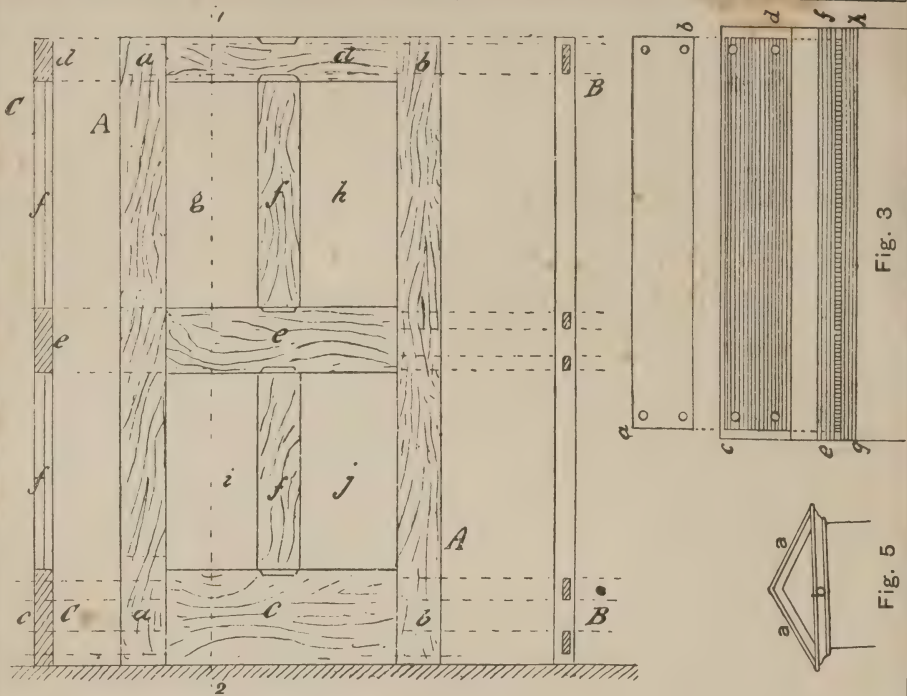


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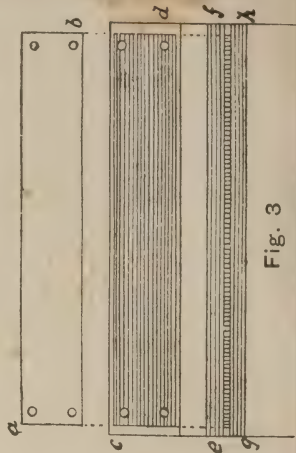


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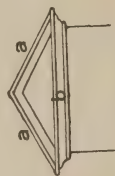


Fig. 5

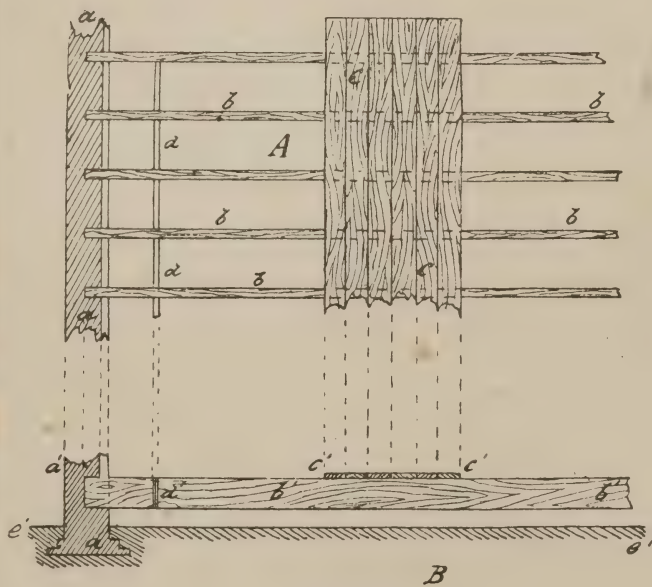


Fig. 2

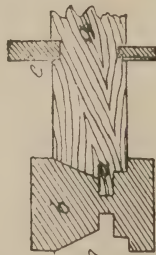


Fig. 4

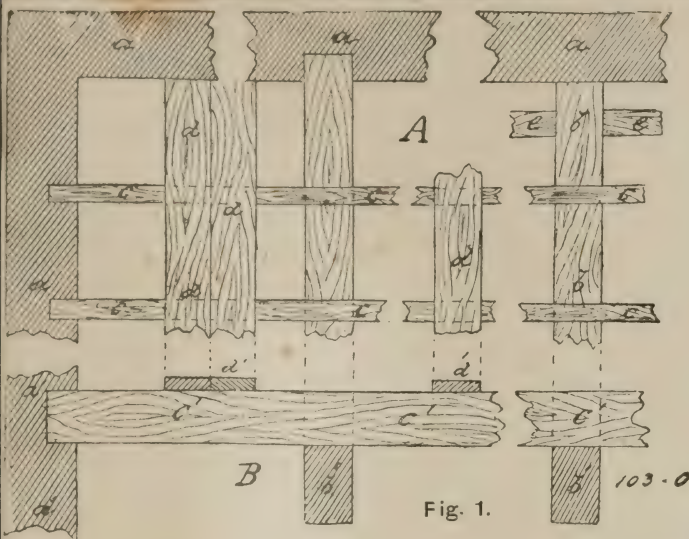


Fig. 1.



Fig. 5

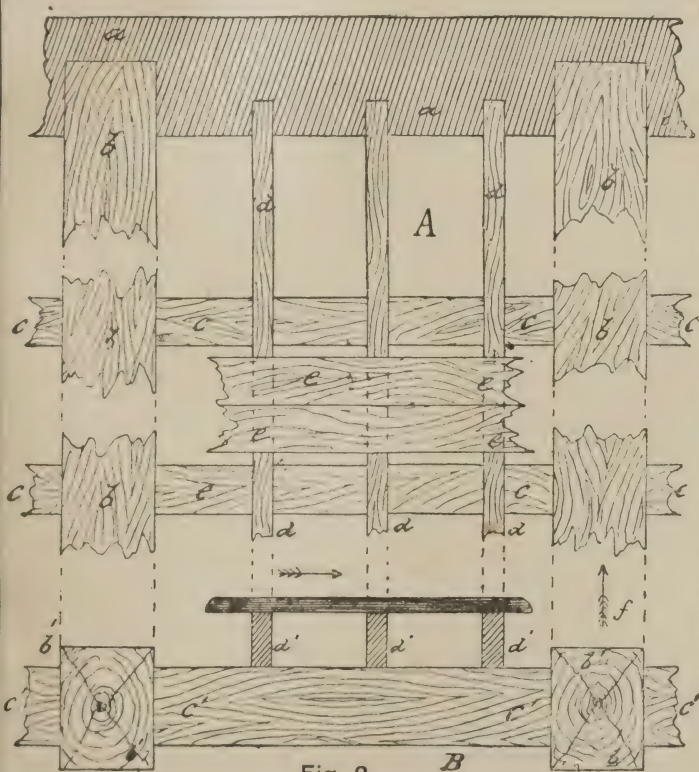


Fig. 2

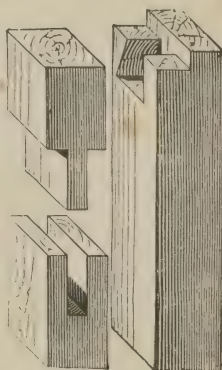


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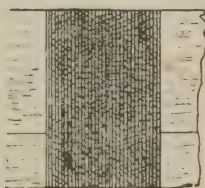
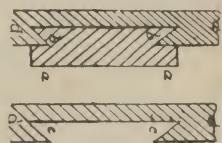


Fig. 3



Der. The word is from the Latin *finire*, to finish, and this from *finis*, the end or extremity or conclusion of a thing. Syn. Fr. *Finir*, to finish—pron. fee-nearr; also *Achever*, to complete, to finish—pron. ah-sheh-vay; also a phrase signifying to put the finishing hand to work, as *Mettre la dernière main* (from *mettre*, to put—pron. met-terr), *dernière*, the last, or the thing behind (derr-nee-yair), and *main*, the hand (mang); Ger. *Endigen* (from *Ende*, the end)—pron. enn-dee-geenn; also *vervollkommen*, to perfect, complete (from the adjective *vollkommen*, complete or perfect—literally “full-come”)—pron. ferr-foll-komm-nenn. A phrase equivalent to the French one we have given above is *die letzte Hand anlegen* (from *letz*, last, *Hand*, hand, and *anlegen*, to put on—that is, to put the last stroke or hand to)—pron. dee letsteh hahnt. The finishing of any work is its “completion,” and the Syn. Fr. for this generally is *Finissage* or *Achèvement* (for derivation see above)—pron. fee-nee-sahj also ah-shave-mahng; Ger. *die Vollendung*—pron. foll-enn-doong; also *die letzte Hand*; also *Endigung*—pron. enn-dee-goong (for derivation of these see above); also *das Fertigmachen* or *die Fertig-machung*—from *fertig* (ferr-tig), ready, and this from *fertigen*, to despatch or complete (ferr-tig-enn), and *machen* (mach-en), to make.

Fire Grate, in Ironmongery. The receptacle or box, made universally of iron, in which the fuel is consumed. The chief parts are the back and front bars, the latter to keep the fuel from falling on to the hearth-stone, and the grating—with air spaces—upon which the fuel rests in burning: hence the name grate. All the other parts are merely accessories, and are usually given for the sake of ornamentation. **Der.** From the Latin *crates*, a crate, a hurdle or enclosing space. Syn. Fr. *Grille*—pron. greel, a grating; hence *griller*, to roast or cook before the bars, also to shut up or enclose—pron. greel-yea; Ger. *Feuerbüchse* (*Feuer*, fire, and *Büchse*, a box or case)—pron. bueck-seh; also *Fuerrost* (from *Rost*, a grate, a gridiron—pron. rosst, and this from *rosten* [ross-tenn], to roast).

Fire-lump. A fire-brick lining for grates—a lining of fire-clay brick surrounding the back and sides of the grate—often only at the back, which, acting as a remarkably slow conductor, retains the heat of the burning coal, and prevents it from being conducted or led away by the ironwork of the grate. And when the fuel burns low, this “lump,” or fire-brick lining, throws out or radiates the heat which it has received into the room. Syn. Fr. *Brique réfractaire pour la foyer* (*brigue*, a brick, and *réfractaire*, refractory, and this from *refracter* [ray-frak-tay], to refract or bend aside or throw off)—pron. breek reh-frak-tair poor lah fwah-yeh. The derivation of

our word refractory and the French *réfracter* is the Latin *refractorius*, which is from *refractio*, I break through, and this from *frango*, I break—meaning that the fire-clay breaks through or resists the tendency of a strong heat to fuse, melt, or disintegrate. Syn. Ger. *Feuerziegelstein* (see Fireplace and Brick for meaning of this term).

Fireplace, in Building. The opening left in walls to receive the grates. Where, as in masonry, the walls are thicker than they usually are in brickwork, the depth necessary for the recess can be so obtained that the sides of the opening are “flush” with the general surface of the wall of the room. Where the thickness of the wall is not sufficient for this, the depth of recess is obtained by bringing forward part of the wall on each side of the opening in the form of a projection or set-off, which is termed a “jamb.” This may project but a small distance before the wall, or it may have so considerable a projection that recessed spaces are formed on each side of the fireplace opening of sufficient depth to admit of bookcases or wardrobes or cupboards being formed in them. As in superior rooms, or as fancy may dictate, a flush wall on the fireplace side of the room may be desired, the depth of recess is obtained by making the projection at the outside of the wall. The width of jambs depends upon whether they carry or contain a flue passing up from a lower floor. Where a house is in several floors or stories, the arrangement of the flues necessitates the throwing out of the jamb on one side of the fireplace, so that there is no vertical line common to all the jambs in the several stories. So that when the fireplace is to be kept in the centre of the room the recessed spaces are of unequal breadth in the various floors, or the fireplace is thrown out of the centre, more or less to one side. When the thickness of the wall, or where an offset made at the back or outside of wall, admits of the flues being all placed within the front line or inner or room surface of wall, they can all be arranged without disturbing the flush surfaces of the walls. In a large and high house the arrangement of the flues becomes a very complicated matter. Syn. Fr. *Foyer*—pron. foh-yeh; Ger. *Heerd*—pron. haird, a hearth; also *Feuerraum* (*Feuer*—pron. foy-err, fire, and *Raum*—pron. rowm, a room, chamber, or place); also *Feuerplatz* or *Feuerloch*.

Fir, in Materials. Otherwise pine, the variations of which are numerous, as white, yellow, red, or pitch pine. The two chief sources are the American continent—hence the timbers obtained from this are known generally as American pines—and from the north of Europe, Sweden and Norway, known to the trade by various designations,

as Dron, Memel, Dantzic. *Der.* From the Old English *furh* (*wuda*), fir wood or timber. The Welsh synonym is *fur*. Syn. Fr. *Bois de pin* (*bois*, wood, and *pin*, pine or fir)—pron. bwah deh pang; Ger. *Föhrenholz* (*Föhre*, fir, and *Holz*, wood or timber)—pron. foerr-enn-holtz.

Firmer, Furmer, or Former. A large chisel used in carpentry or joinery, also termed a "ripping" chisel, for rough work or blocking-out parts. The correct term is "former," as it obviously is derived from the word *form*. Syn. Fr. *Ciseau pour les planches* or *à planches*—pron. seize-oh poor-lay plahnsh-aise; the single term *fermoir* is also used—pron. ferr-mwair, which means literally a clasp, a chisel, "to clasp firmly by the hand"; our word firmer may come from this; Ger. *Schroteisen*—pron. shrote-eye-zenn (from *Schrote* [shroh-teh], and *Eisen*, iron or steel).

Fir-poles, in Rustic Work. The boles or trunks of small trees used in erecting summer-houses, etc., are so called.

Firings or Furrings, in Carpentry and Joinery. When beams or girders or large joists, by sagging or bending through pressure continued for some time, have a concave upper surface, slips or thinnish pieces of wood are nailed to the upper faces so as to bring them to a true or dead level. "Firing pieces" is a name given frequently to the small rectangular or square pieces of timber which are nailed to the wood bricks in front of walls, and on which the laths are nailed to receive the plaster and finally the paper or paint. In some cases canvas is stretched on and nailed to the outside of the firing pieces, that is, towards the interior of the room on which the paper is laid. The plan is adopted where walls are damp or likely to be damp. The name "firing pieces" is also sometimes given to the slats or rolls used to cover the joints or seams of boarding—weather boarding—of which the sides of sheds or wooden structures are formed. Firing pieces, when small in cross section, and that generally rectangular, deeper than broad, are sometimes termed "fillets."

First Coat, in Plastering. The first layer or thickness of plaster put on a wall. The fact of the plaster being laid in some cases on laths and sometimes on brick surfaces, gives rise to a distinction in the term. Thus if the "first coat" be laid—in "two-coat work"—on lath, the term "laying" is employed; if on brick, that of "rendering" is used. When the plastering is done in "three-coat work," then if the first coat be laid on lath, the operation is termed "pricking in"; if it be laid on brick, it is termed "roughing in."

Fitches, in Painting. The small brushes used to put in lines or narrow bands of

colour. Syn. Fr. *Petite Brosse du peintre* (*brosse*, brush)—pron. peh-teet bross duh pang-terr; Ger. *der kleine Pinsel* (*kleine*, little, *Pinsel*, painting-brush)—pron. kly-neh pin-zell.

Flashing, in Plumber's Work. The method of using flat pieces of lead so as to secure a water-tight joint, as round the outer surfaces of a chimney stack or flue as it passes through a roof, or where the roof terminates at the coping of a gable, or in making gutter-work water-tight. The object aimed at in "flashing" is to place the lead in such a way that the rain-water, which would otherwise pass down say the sides of a flue and through the opening or joint left between them and the roof boarding, is thrown aside or deflected. This is done by first fixing a strip of lead all round the body—as a chimney stack—to be flashed; this coming quite close up to the brick or stone work. A strip of milled lead, some nine inches broad, is then bent at right angles; one side is dressed over the flat lead strip all round the stack, and the other is passed vertically upwards for a short distance on the sides of the stack; and finally the upper edge is bent and driven in for some distance into the space or joint—the mortar being picked or pricked out to the depth required—between two contiguous courses of bricks. The water is thus compelled to pass over the lead, and is led on for some distance to the surface of flat lead, and from thence to the slates.

Flaw, in Materials. Generally a defect in or that which lessens the value of a building material, such as a crack or fissure or a knot in timber, a "cloud" or bad streak of colour in marble or freestone and the like. The derivation of the word may be traced to the Greek, in which *phlaîn* is to break, as a crack or knot in wood breaks the continuity of a good surface. Or it may come, as it probably does, from the Old English word *floh*, a break, and this from the verb *flean*, to break or rupture. Syn. Fr. *Défaut*, a defect—pron. day-foh; also *Gercure*, a crack (from *gercer* [jerr-seh], to crack or chip)—pron. jerr-suehr; also *Fente*, a crack—pron. fahnt (from *fendre* [fahn-der], to split or cleave); also *Brèche*, a hole, a gap, a crack—pron. braysh; Ger. *Fehler*, a defect, a fault—pron. fay-ler (from *fehlen* [feh-lenn], to fail, to miss—that is, the material fails to show its good appearance); also *Riss*, a chink, a cleft, a crevice (from *reissen*, to tear—pron. rye-senn); also *Windstoss*—pron. vind-stohss (from *Wind*, the wind, and *Stoss*, a push or thrust), as a defect caused in timber by breakage through the force of the wind. The word "defect" is itself derived from the Latin *defectus*, a fault, a deficiency, and this from *de*, from, and *facere*, to make—that is, to fail in making.

Flitched Beam, in Carpentry. A method of strengthening a beam by the employment of a flat plate of iron, either wrought or cast iron—generally the former—termed a “flitch.” If a beam of given dimensions is too weak in its ordinary condition for the load it has to carry, it is cut longitudinally into two equal parts forming two separate beams. These are reversed in position, so that what was the interior is placed outside, thus exposing it, greatly tending to season the timber. The “flitch” or flat iron plate, of breadth equal to—or a little less than—the depth of one of the beams, and of the same length, is placed between the two beams, and the whole screwed by screw bolts and nuts, the bolts passing through the two beams and the flitch—the latter being placed centrally between them. If two beams, both of which if placed side by side and close together, and thus forming a single beam, are united still too weak too carry the load to be put upon them, by “flitching” in the way just described a greatly increased strength will be obtained.

Float, in Plastering. A flat-surfaced tool or board provided with a handle; used in three-coat or floated lath-and-plaster work, to bring the plaster to a flat, smooth surface, ready for the final or finishing coat. The term is probably derived from the circumstance that the plaster, being put on in a comparatively thin or semi-fluid condition, is capable of being moved from one position to another, so that a point in it may be said to float to and fro. (See Dissertation preceding Terms.)

Floated Lath and Plaster, in Plastering. This may be defined as the work done in properly and finally finishing the plastering of a wall to be papered or painted. The work is “three-coat work.” The first coat is called technically “pricking up” when on lath, and “roughing in” when the surface or wall is of brick. The second coat is “floating,” which is always accompanied by the pricking up or roughing in. The third or the “setting coat” is of fine stuff (which see—also First Coat).

Floated Work is always that in which “pricking up” and “roughing in” is done, the two other coats being floating and setting. (See First Coat, and Floated Lath and Plaster.)

Floating, in Plastering. This is the name given to the second coat of finished plaster work for walls for papering or painting. (See Floated Lath and Plaster.)

Flooring Boards, in Joinery. The planks or boards used as the finishing or upper surface of a floor framing, forming the walking or treading surface of the room. They are laid down in several ways. In the first or cheapest the boards are simply placed edge to edge, the width of space for the

last board put in being left somewhat less than the breadth of the board, so that this has to be forced or wedged in, generally by jumping or pressing upon it with the feet; by this means the boards are brought or jammed up closely together. In the second class, or floors of a superior kind, the boards are tongued and grooved on their edges, one edge having a tongue or projecting feather, the other edge being grooved. The boards are laid down the tongue of one edge going into the groove of the edge of the next or contiguous board; and the whole set are pressed or forced together by the mechanical pressure of a tool called a “flooring cramp,” so that all the joints are made fair and good. In the third or the best system the boards are “dowelled” together. In this each board has slots or narrow grooves cut out on each edge at intervals along the length, and extending onwards some distance from the edge. These holes correspond in position, so that when the boards are placed *in situ*, or in place, a series of narrow rectangular holes are shown. Into these flat wood pins, keys, or “dowels” are driven, thus keeping the whole of the boards in close contact. In all systems of flooring it is essential that the wood used for the planks or boards shall be well and thoroughly seasoned, otherwise the boards will warp or “skelly”—that is, have a wavy uneven surface, or will shrink and show the “seams” or spaces between the boards of greater or less width. When the flooring boards are cramped or forced in to the floor space, it is said to be a “folded floor.” The French synonym is *plancher forcé*—pron. plahn-sheh for-say (from *forcer* [for-say], to force or compel); Ger. *der gepresste Bretboden*—pron. gay-press-teh bret-boh-denn (from *pressen* [pres-sen], to press or force, *Bret*, a board, and *Boden*, a floor).

Floors, in Carpentry and Joinery. The timber framings placed horizontally at certain heights of the walls of a house or structure, forming the divisions between one story and another, and supporting, in ground or basement floors, the upper treading or walking surface,—in upper floors, as the first floor, the framing on its upper part supports the walking surface or flooring boards; its lower part carries the ceiling of the room below. Floors are of three kinds or classes:—First, simple or “single floors,” in which joists, supported at both ends by the wall, carry the flooring boards. Second, “framed floors,” where the “flooring boards” are carried by “bridging joists,” which are themselves carried by the “binding joists,” which are supported by the walls. The “bridging joists” are of course at right angles to the “binding joists,” and are so called from their bridging over or spanning the distances or spaces between the “binding joists.” The “flooring boards”

are again at right angles to the "bridging joists," or parallel to the "binding joists," which latter are so called from their securing or binding the whole framework pieces together. The third class is "double-framed" floors. In this class the principal members are called the "girders," which are the pieces let into or supported by the walls, and which girders carry the other members, thus:—At right angles to the "girders" the "binding joists" are framed at intervals; at right angles to them are the "bridging joists," which finally carry the "flooring boards," and these at right angles or parallel to the binding joists. These three classes of floors are used in gradations, according as the floor space or distance between the walls to be framed over increases. The "girders" are so called from their girding up or binding closely and securely together the various members of the framing. The following are synonyms in French for the various members named. In general terms a floor is called *Plancher*—pron. plahn-shay (from *planche* [plahnsh], a plank or board). The joists are termed *gîtes* (pron. geet). Heavier joists, which we term binding joists, are designated *poutres* (poo-terr). The same term *poutre* (poot-err) is also applied to a still heavier piece, and which we call a beam or girder. A synonym for *gîte* is *solive*—pron. soh-leave. The flooring boards are termed *planches*—pron. plansh. The trimming joists (see "Trimmer") are called *gîtes* or *solives* *d'enchevêtreure*—pron. soh-leeves dahn-shay-vay-treuer, and this from *enchevêtrer*—pron. angsh-veh-treh, to entangle one's self, to halter or tie up. The "trimmer" itself is called the *chevêtre*—pron. shev-ay-terr. This term also is applied to our "binding joists," which the term literally means. The space itself between the "trimmer" and the front of fireplace wall, and by the side joists or trimming joists, is called the *trémie* (pron. treh-meeh), meaning literally "a mill hopper"—that is, an opening. This opening is covered by the hearthstone (see "Trimmer"). When the joists are not built into the wall but are carried by a part projecting from the face, this part is called the *tambourde*—pron. tahn-boord (from *tambour* [tahn-boor], a drum, also a wash-board).

Flue and Flues, Chimney, in Masonry and Bricksetting. The hollow channels or passages formed in the thickness of the wall or within the "jambs" (which see—also Fireplace) by which the smoke from the grate in the fireplace is conveyed to the outer air. The form of flues is almost universally rectangular, 14 in. × 9 in. being the normal dimensions of flues for ordinary grates of sitting-rooms, bedrooms, and the like. For kitchen fireplaces 18 in. × 14 in.

is the regular size, but this may be much exceeded where the kitchen is extensive and the cooking-range large and complicated. Flues are sometimes formed of circular section, hollow earthenware blocks being specially made for this kind of work. Flues so formed are termed tubular or circular. The ordinary brick or stone formed flue is generally lined with a mixture of cow-dung and mortar, termed "pargetting," which for generations has been used as forming the best lining for flues through which a sooty smoke, as that from ordinary coal, passes. The part of the flue which extends above the roof is called the "chimney shaft," and when there are several flues in one shaft or rising from the roof, the whole is called a "stack." The flues in the interior of a stack are separated from one another by brick or stone divisions called "withs." Flues are sometimes termed "funnels"—Scotticé "Vents."

Flutes or Flutings, in Architecture. Hollow grooves or recessed parts generally in section forming a part of a circle, placed, and spaced equally, round the circumference of a column or pillar, or formed on the face of a pilaster (which see). Some flutes are very shallow, as in the Doric order, other forms have considerable depth. In place of contiguous flutes meeting in a point, or with a sharp edge or arris, a half bead moulding is run between the flutes.

Flying Buttress. (See Arch-buttment and Buttress.)

Folding or Folded Floor, in Joinery. (See Flooring Boards.)

Foot, Cubic. A term frequently used in indicating the quantity, weight, or measurement of timber or stone. A cubic foot or foot-cube is a body, mass or bulk of material which measures a foot on every side. It is so called from such a mass forming the figure known as the "cube," a six- and equal-sided figure, of which "dice" is a popular exemplification. From the Latin *cubus*, and this from the Greek *kubos*, meaning a six-equal-sided body. The cube of a number is that number multiplied twice into itself, as the cube of 6 is $6 \times 6 \times 6 = 36$, and this again multiplied by 6 = 216. Syn. Fr. *Pied de cube*—pron. pee-eh (from *pied*, a foot, and *cube*); Ger. *Kubicfuss*—pron. koob-eek-foose (from *Kubus*, a cube, and *Fuss*, a foot. All timber and stones are measured by cubic measurement. A cubic "inch" in French is *Pouce de cube*—pron. pooce deh cuhb; Ger. *Kubiczoll*—pron. koo-beek-tzoll.

Footings, in Masonry and Brickwork. That part of a wall resting on the foundation from which the wall of the normal or required thickness starts or springs. The footings taken as a whole are of greater breadth than the wall they support, and in brickwork are of two, three, or more courses in depth or thickness, each course pro-

jecting beyond the course above it the distance of half or quarter a brick. Those projecting points are called "offsets." The work the "footings" have to do is to distribute the pressure of the superincumbent walls over as great a surface of the soil or foundation site as possible, in order to prevent unequal pressure on its, and by consequent unequal vertical settlement of the walls—an evil which gives rise to many other evils in house construction. The more uncertain the soil in its character of stability or sound firmness, the more widely should the pressure of the superstructure be distributed. In all cases where pressure is to be resisted or heavy weights borne, the young constructor should always have in mind the importance of having good, that is, broad, bearing surfaces. This involves wide footings, the thickness or depth of which should be proportionate to the width.

Form, To, in Building Construction. A term often used as synonymous with to make, shape or fashion, as in forming a moulding. *Der.* From the Latin *forma*, a shape or configuration. *Syn. Fr. Former*—pron. forr-meh, to shape or fashion; *Ger. Bilden*, to shape or form—pron. bill-denn; also *Einrichten*—literally "to right or make right"—that is, give an object its proper shape (from *richten* [reegh-tenn], to make straight or to direct aright)—pron. ine-reech-tenn. In the substantive sense "*form*" is the shape itself of an object, and the French synonym is *façon*—pron. faw-song, a form or shape. Our word "fashion" comes from this, and the French word itself from the verb *façonner*—pron. fah-son-nay, to mould, to shape, to fashion; *Ger. die Form*, fashion, shape (from *formiren*, to mould or shape—pron. forr-mee-renn); also *die Gestalt*, figure, form—pron. geh-stallt (from *gestalten*, to shape, to give figure to—pron. geh-stall-tenn). "*Formation*" is a term frequently used in construction, not only as synonymous with the form or shape of a body, but as the act completed. First we form to give the shape or form, and when the work is completed we have the formation. *Syn. Fr. Conformation*—pron. kong-forr-mah-see-ong (from *conformer* [kong-forr-meh], to conform with—that is, take the shape or form of); also *Formation* (from *former*, to form)—pron. forr-mah-see-yong; *Ger. Gestaltung*—pron. geh-stall-toong (from *Gestalt*, see above); also *Bildung*—pron. bill-doong (from *bilden* [beel-den], to shape or form. "*Forming*" is a term also used in building construction, as in forming a mortise. *Syn. Fr. Former le mortaise*—pron. forr-meh luh mortaise; also the single term *Décollement* is used, which means literally "ungluing or unfasting"—that is, separating one piece from another, and is derived from the verb *décoller*

(deh-koll-eh), to behead, unglue, or take off—pron. deh-koll-mang; *Ger. die Zapfenlöcher behauen*—pron. dee tzap-fenn-loech-err bay-how-enn (see Mortise).

Former. A tool used in carpentry and joinery (see Firmer).

Foundations, in Masonry and Brickwork. Those parts of the soil of the site of a house or structure on which the walls rest. The natural surface of the soil is never used, save in very exceptional cases; but in all work the surface soil is laid aside, and trenches corresponding in width to the thickness of the wall or the breadth of the "footings" (which see), dug or excavated. The depth of these trenches should be such that firm, sound soil is reached. And whenever loose soil or shifting sand is met with, special work should be done in order to secure a firm and unyielding surface on which the walls are to bear. This special work is of different classes, a layer of concrete being one very usually adopted; in more complicated cases piling. The classes of what are called "foundation soils" are somewhat numerous, and not defined always by marked lines of difference; some changing gradually—in some cases very suddenly—into others of a totally different character. The best or standard is rock—though even this may be treacherous and unsound in parts; the worst bog and quicksand; and between these gravel, shale, clay, loam, and pure sand are met with—which last, under certain conditions, gives one of the best "foundation soils" with which the builder has to deal. "Foundation trenches" and "foundations" are frequently considered as synonymous terms; the trench, however, is only the means of exposing the soil or surface upon which the foundation proper is laid—literally it is the bottom of the trench.

Fox-tail, in Carpentry and Joinery. A term used to indicate the form or shape of a tenon, or a mortise corresponding, in the mortise and tenon joint, or the wedges are so called when a tenon is wedged up. The name is given from the supposed resemblance of the tenon, with its sides spreading out fan-like from its root, to the tail of a fox. *Syn. Fr.* for the phrase "fox-tail tenon or mortise," *Tenon à queue de Renard*—pron. teh-nong ah kieuh dey reh-narr, or *Mortaise* (morr-taize), etc. For the phrase "a tenon with fox-tail wedges," *Tenon avec une contre clavette*—pron. tay-nong ah-veck uhne cong-ter klah-vett (*contre*, against, and *clavette*, a little key; *Ger.* for the phrase "a fox-tail mortise," *Zapfenloch*—or *Fuge* (foo-geh)—in *der Form eines Fuchsschwanzes*—pron. tzapp-fenn-loch in derr form ine-ess fooks-shvannt-ses (*Fuchs*, a fox, and *Schwanz* [shvaants], a tail)—*schwanz* (shvan-tsen), to make a tail. A fox-tail tenon in German.

is the above, with the word *Zapfen* in place of *Zapfenloch*. The German synonym for the phrase "a fox-tail wedged tenon" is *Zapfenworteil*—pron. tzapp-fenn-forr-kile (*vor*, before, and *Keil*, a wedge)—from *keilen* (kile-enn), to wedge up, meaning literally "a tenon with wedges projecting from or before its face."

Fracture, in Construction. A break or rupture. When the body or part is quite broken in two the fracture is said to be a complete, if not, it is said to be a "partial fracture." *Der.* From the Latin *fractio*, a break or rupture (from *frangere*, to break in pieces). *Syn. Fr. Fracture*—pron. frahk-tuuh (from *fracturer* [frahk-tuuh-eh], to fracture or break in pieces); also *Cassure* (more, however, in the sense of a flaw, as a crevice in a broken place, which latter is the exact meaning of *cassure*)—pron. kah-suhr (from *casser* [kass-eh], to break); *Ger. der Bruch*—pron. der brooch (from *brechen* [brech-enn], to break). It is the object of all good and sound construction to prevent fracture of materials in bodies through over pressure or weight, or through pressure badly distributed.

Framing or Framework, in Carpentry and Joinery. The assemblage or combination of pieces of timber arranged in different relation to each other, as parallel, horizontal, vertical, oblique, or angular, to meet different purposes—as floors, partitions, roofs, etc. The two names or terms are convertible. The principles upon which framing is designed, the calculations by which the dimensions of its members are ascertained, and the methods by which they are joined together to form the whole, constitute the science and art which will be found described in any complete work on Carpentry.

Framings of Doors and Windows, in Joinery. The woodwork, otherwise termed "casings," which surrounds apertures or voids in walls for doors and windows.

Franking, in Joinery. The cutting away from the side of a vertical or upright bar, as in window-sash making, so as to receive the end of a cross or transverse bar, as much only of the wood being cut out as will admit of a perfect "mitre" (which see) when the two bars are put or joined together. The term "franking" is also used for the operation in carpentry of the joining of members of framing, as purlins on a rafter, as by notching. *Syn. Fr. Assemblage embrèvement*—pron. ah-sahm-blahj ahm-brave-mang; *Ger. Kerbenfügung*—pron. kerr-benn-fueh-goong (from *Kerbe* [kerr-beh], a notch or indented point, and this from *kerben*, to notch or indent), and *Fügung*, joining (from *fügen* [fueh-genn], to join, or from *fügen* [fueh-genn], to groove, to fit).

Freestone, in Materials. A stone so called from the freedom or ease with which

it can be tooled or worked. It abounds in many districts: those of Bath and the Isle of Portland may be taken as types of English sources of freestone; that of Craigleith, near Edinburgh, as the type of Scottish. Most of the houses of the last-named town, so celebrated for its picturesque beauty, have been built from the Craigleith quarries.

Free-stuff, in Joinery. Timber which works freely and smoothly under the tools, being free from knots and other defects which cause the surface to tear up or be rough. It is otherwise called "clean" stuff or timber, giving a "clean"—i.e. a uniform and smooth—surface when finished.

Fret, in Architecture. A characteristic ornament of Grecian architecture, and which in modern work is much used in decorating flat surfaces, as cornices and the like. It consists of flat, narrow bands, ribbons, or lines cut into, raised from, or simply laid on, surfaces bent at right angles to each other. In the Greek fret only one band is used, and the lengths of the bent parts—the horizontal or vertical—are equal, so as to dispose the ornament into what may be considered as squares. In other and later and modern forms of frets, two and sometimes more bands are used, their bendings interlacing with each other in a way sometimes so involved as to form what may be called ocular puzzles—much opposed in their complication of lines to the severe simplicity of the original or Greek fret.

Frontage is a term in building sites to indicate the length or extent of the front site parallel to the street or road. *Syn. Fr. Ligne de façade*, a front line; *Ger. Linien-aussicht*—pron. leenyen ouss-zicht (*Linie*, a line, and *Aussicht*, a view, aspect).

Front Door or Principal Door to a Building. Generally faces the street or road. *Syn. Fr. Porte principale*—pron. pohrt prang-see-pahl; also *Porte en face*—pron. pohrt ang fahss; also *Avant porte*—pron. avang; *Ger. Hauptthür*, head or chief door—pron. howpt-tuerr; also *Vorthur*, the door before—pron. fore-tuerr. *Front Court.* *Syn. Fr. Cour en face*—pron. koor ang fahss; also *Cour d'entrée*—pron. koor dang-tray; *Ger. Vorhof*—pron. fore-hofe. *Front or Face of a Wall.* *Syn. Fr. Face d'un mur*—pron. fahss doon muehr; *Ger. Mauerfeld*—pron. mough-err-felt (from *Mauer*, a wall, and *Feld*, a field).

Front Elevation, in Drawing. This shows the design of the principal face or front of the building. *Syn. Fr. Projection verticale*—pron. proh-jek-tsee-ong verr-tee-kahl.

Front View or Principal Front, of a Building. *Syn. Fr. Façade*—pron. fah-sahd (see *Façade*); *Ger. Hauptfront* (*Haupt*, head or chief)—pron. howpt-front.

Frosted Work, in Masonry One of the

methods of preparing the surfaces of stone blocks, chiefly used in quoins, known as "rusticated" work, and is done by tooling or picking out parts of the surface, leaving other parts as raised. The whole is presumed to be an imitation of frozen drops of water

of irregular size and disposition. It is chiefly used in buildings of which the style is Italian or Pseudo or Bastard Italian.

Frowzy-stuff, in *Joinery*. The same as Free-stuff (which see).

G

Gable, in Building. The upper part or termination of the end wall of a house, of which the outline is triangular; this shape being formed by and at the same angle as that of the span roof. *Der.* From the German *Gabel*, a fork, from the shape of a gable; but forks are generally rectangular, not triangular in form as a gable is. Some derive it from the Arabic *Ghebel*—Ger. *Gipfel* (gip-fell—the *g* as in gay), the summit or point, as of a mountain, etc. Syn. Fr. *Pignon*—pron. ping-yong; Ger. *Giebel*—pron. gee-bell; also *Mauergiebel* (*Mauer*, a wall)—pron. mough-err-gee-bell.

Gable Coping, or Gable Coping Course, in Masonry. The narrow ridge or facing line of stone with which roofs are terminated at the gable line, in place of the roof surface being extended to and projecting slightly over the gable end of the house, as usually done. The gable coping is narrow on surface—from six or nine up to twelve inches. It is, in buildings in the Gothic and Castellated and Baronial styles, broken up so as to present from the end or gable view of the house a step-like series, a finial (which see) terminating the apex of the gable. To this style of stepped gable coping the name of corby steps or crow steps is sometimes given—both meaning the same thing, and so called from, as it is conjectured, the supposition that crows would settle or perch upon them. The word "corby" is a corruption of the French word *corbeau* (korr-boh), a raven or crow; also, however, a *Corbel* (which see). In Scotland the term gable coping is denoted by the word "skew," a corruption of askew—that is, a part on the slope or slant. Syn. Fr. for "gable coping," *Pignon de la tête de mur*—pron. ping-yong duh lah tayte deh moohr (from *pignon*, a gable, *tête de mur*, coping)—literally "the head (*tête*) of the wall" (*mur*); Ger. *Giebelmauerhut*—pron. gee-(*g* hard) bell-mow-(*ow* as in our word now) err-hoot (*oo* as in foot)—from *Giebel*, a gable, and *Mauerhut*, a coping (*Mauer*, a wall, and *Hut*, a hat)—literally "the covering or cap of the (gable) wall"; also *Mauerhutbedeckung*—pron. mow-err-hoot-beh-dekk-oong (from *Deckung*, a covering [deh-koong], and this from *decken* [deh-kenn], to cover, and *Hut* [pron. hoot], a hat). Syn. Fr. for a "stepped-crow or corby-stepped gable," *Pignon à marche*—pron.

pin-yong ah marrsh (*pignon*, a gable, and *marche*, a step of a stair), the latter from *marcher* (mar-sheh), to step or march; also *Pignon à redents*—pron. ping-yong ah reh-dahnt (from *pignon*, a gable, and *dent*, [dahng], a tooth or notch, and *re*, again)—that is, to re-tooth or re-notch, producing a series of projections like teeth repeated; Ger. *der getreppte Giebel*—pron. geh-trepp-teh gee-bell (from *Treppe* [trep-peh], a flight of steps or stairs); also *der getreppe Giebelmauerhut* (for derivation see above).

Gable Roof, in Architecture. The name given to the roof of a building, as a church or chapel, in which there is no ceiling, but the sloping timbers of the roof are exposed, terminating at the gables of the building at each end. If the gables have windows these are called "gable windows."

Gablet, in Masonry. A species of "finial" (which see) in the form of a gable, or with a triangular face more or less ornamented, and which terminates buttresses in Gothic architecture, and is sometimes used at the lower step of a "stepped gable" (see preceding article). The term is a diminutive of gable—i.e. little gable. Syn. Fr. *Pignon petite*—pron. pin-yong pe-teet—or *Petit pignon*—pron. peh-teeh pin-yong (from *petit*, little or small, and *pignon*, a gable; Ger. *der kleine Giebel*—pron. kline-eh-gee-bell (*klein*, little or small, and *Giebel*, a gable).

Gage, or Gauge, in Plastering. The name given to a mixture either of plaster and fine stuff (which see), or of plaster and coarse stuff (which see), and which is used to form or "run" mouldings; also for the last or finishing coat of ceilings. Syn. Fr. *Mélange de stuc avec mastic*—pron. may-lahnj deh stock ah-vek maus-teek (*mélange*, a mixture *stuc*, stucco).

Gangway or Gangboard, in Building. A species of rough stair, leading from a low to a higher level in a building, made with boards or planks laid side by side and supported temporarily at either end. When the inclination or slope is considerable, cross battens are nailed to the surface to afford a foothold or form a species of "treads" or "steps." *Der.* From the Old English word *gang*, a way or passage. Syn. Fr. *Passarelle* (pron. pass-ah-rell), a narrow or foot-bridge; also *Planche passe*—pron. plahnsh pass (*planche*, a board, and *passe*, a pass or way)—from *passer* (pah-sch), to pass over or

upon; also *Passe-avant*—literally “the pass or way before one” (*avant*, before)—pron. pass-ah-vang; Ger. *das Gangbrett*—pron. dass gang-brett (from *Gang*, a passage, and *Brett*, a board or plank); also *lauffplanke*—pron. lowff-plank-eh (from *Laufen*, to run and *Planke*, a plank).

Gantry, in Carpentry. An arrangement of timber framing in which a heavy horizontal beam or balk is supported by vertical beams or wooden pillars, stayed by diagonal struts and braces. Two of such framings are placed parallel to and at a distance from each other as the work to be done demands, and the whole supports and carries a traveling crane, by which the building materials are transported from one point of the space bounded by the two framings to another as required. The crane travels upon rails secured to the upper surfaces of the horizontal beams.

Gargoyle, in Architecture. The name given to a waterspout or pipe formed of stone, and which projects horizontally from the wall at the upper part, to carry off the rain water from the roof or gutter. Gargoyles form a distinguishing feature of Gothic architecture, as in the great majority of cases they assume various forms, chiefly grotesque, the outer extremities terminating with heads of fauns or fanciful monsters—sometimes human heads—the mouths of which are the apertures from which the water issues or spouts. The term is a corruption of the French word for the part, namely *Gargouille*—pron. garr-gooieh, which means a spout, and is derived from the verb *gargouiller*, to gurgle or dabble—pron. garr-gool-yeh; also *Gargouille d'une gouttière* (*gouttière*, a gutter, which English term comes directly from this)—pron. goo-tee-air; Ger. *Wasserspeier*—pron. vass-er-spy-er (from *Wasser*, water, and *speien* [spey-enn], to spit, to vomit).

Garland, in Architecture. An ornamental band or line composed generally of conventional forms of flowers, leaves, or fruit, disposed either as straight lines, frequently in the form of the catenarian curve or drooping, often arranged as a circle or wreath. Syn. Fr. *Guirlande*—pron. gear-lann-deh; Ger. *Fruchtgehänge* or *Frucht und Blumengehänge*—pron. froocht (see Dissertation for sound of *ch*)—oond-bloo-menn-geh-heng-eh (from *Frucht*, fruit, *Blumen*, flowers, and *hängen*, to hang or suspend). The word garland is derived from the Greek *gyros*, and the Latin *gyrus*—meaning a circle—the garlands of the ancients assuming the form of a circle, or, as we call it, a wreath.

Garret, in Building (see Attic). The upper apartment in a building, generally formed in the roof, and having its sides of the same slope or angle as that made by the roof. Syn. Fr. *Mansarde*—pron. mann-sahrd,

so called from the name given to the form of roof (see Curb Roof) known as the Mansard. In this, however, the sides of the garret apartment are vertical, which is one of the advantages obtained by adopting this form of Mansard or curb roof. Another French synonym is *Galetas* (pron. gal-tah), which means a garret. The “garret floor,” as a chamber floor, ground floor, etc., is *étage en galetas* (from *étage*, a floor—pron. eh-tajh); Ger. *das Dachzimmer*—pron. dach-tzim-merr (from *Dach*, a roof, and *Zimmer*, a chamber.). Our word is derived from the French *guérite* (gerr-eet), a chamber or room in a turret or upper part of a building. The change from this to our “garret” is obvious.

Gaselier or Gazelier, in Housefittings. A term sometimes used in place of chandelier to denote the fixture or light pendant or bracket in rooms, to which the gas burners, with glass shades or otherwise, are fixed. Eng. pron.—gass-eh-leer or gazz-eh-leer. The latter word is from the French *gaz* (gazz), gas. As “chandelier” (Eng. pron.—shan-deh-leer) was literally “a candleholder”—from *chandelle* (shahn-dell), a candle, and *ier* equivalent to the English *er* or *or*. Syn. Fr. *Chandelier à gaz*—pron. shahndell-yeh ah gazz; Ger. *Gaskronleuchter*—pron. gahs-krohn-leuch-terr (from *Krone*, a crown, a top, *Leuchter*, a candlestick, and this from *leuchten* [loichtenn], to light).

Gas Burner, in Plumbing and Gas Fitting. The small iron tube finished at upper part with a small perforation so adjusted that a certain shape or outline is given to the flame on the gas being lighted, of which the “fish tail” or “bat’s wing” is the form generally used. In some cases the gas burner is so that perforated it gives to the flame a long narrow column, called a “rat-tail” light, and in others, as the “Argand” burner, gives a circular or hollow cylindrical light. What are known as “Patent” or “Economical” gas burners, or “jets” as burners are otherwise called, are provided with internal discs or with chambers so arranged that the high varying, undue and wasteful pressure of the gas supplied to the pipes is reduced to a point at which little or no gas is wasted. Syn. Fr. *Bec à gaz*—pron. bek ah gahz (*bec*, a beak, and this from *becqueter*, to peck, as a bird does with its beak—pron. beck-teh); Ger. *Gasbrenner*—pron. gahs-bren-nerr (from *brennen*, to burn, to consume)—pron. bren-nenn.

Gas Meter. An apparatus provided with internal mechanical arrangements by which the volume or amount of gas consumed, as by a household, is ascertained and recorded—literally a “gas measurer.” Meters are of two kinds—“water” and “dry.” The water meter may be called hydraulic mechanism,

as water is the vehicle by which the measurer does its work. The dry meter may be considered as a pneumatic mechanism. Syn. Fr. *Gazomètre des abonnés*—pron. gahz-oh-may-terr daise ah-bon-nay — from *abonner* (ah-bon-neh), to subscribe, to compound for: *abonné* (ah-bon-nay) is a subscriber; *abonnement* (ah-bonn-mang), is a subscription; Ger. *Gasmesser*—pron. gahs-mes-serr (from *messen* [mess-en], to measure: *Messer* is a measurer; *Messung* [mes-soong], is measurement.

Gas Pipes, in Plumbing and Gas Fitting. This term is applied to the small-diametered pipes or tubes made of tin—water-pipes being of lead—which are “laid over” (to use the technical term) the house, to lead or convey the gas supplied from the “mains” (large cast-iron pipes) laid in the streets or roads, to various parts where lights are required in the apartments. Gas, like water pipes, are too frequently laid down in a faulty and irregular manner, leading often to great loss when repairs or alteration have to be made. Syn. Fr. *Tube à gaz*—pron. tubb ah gahz—or *Tuyau à gaz*—pron. twee-yoh; Ger. *Gasröhre* (from *Rohr* [rorr], a cane, reed, or tube—*Röhre* [roeh-reh] is a tube or pipe)—pron. gas ro-reh.

Gate, in Carpentry. A framework of timber—or of iron in smith's work—used for closing the entrance to a road, as the opening leading to, or the entrance of, a road or avenue of a house or mansion, or to the entrance to a field or to a side path. If used for a wide entrance or opening, the framework is longer than broad or deep; if for a side entrance or narrow opening, it is usually square, but often higher than it is wide. The framework is hinged at one side to a post of stone or timber, and a latch is fastened to the post at the other side of the opening. The only true mode of constructing a gate, so as to secure the maximum of strength and capability to resist the strain which tends to make the gate droop and fall from its hinged side, is to divide the rectangular or square framework into triangles by using a diagonal brace from corner to corner. Whatever the style of arrangement of the interior timbers, ornamental or otherwise, this system of diagonal bracing must always be adopted if sound construction be desired. Der. From the Old English word *geat* or *gat*. Syn. Fr. *Porte à treillis*—pron. pohrt ah trayl-ye, i.e. an entrance closed with an open-work or trellis frame in place of a solid door; Ger. *Gatter*—pron. gatt-err, the same meaning as the French term just given. A gate for a **Gateway**, as the entrance to a courtyard, is generally constructed more after the fashion of a solid braced and ledged door. Wrought-iron

gates of an open construction are, however, often used. The term “gate” is most usually applied to road entrances leading to the house and at some distance from it; that of “gateway” to some part of the house arrangement itself, as the courtyard. Syn. Fr. *Porte cochère*—pron. pohrt koh-share—literally “a coach entrance or door”; Ger. *Thorweg*—pron. tohr-vayg (from *Thor*, a gate, and *Weg*, a way). The gates or doors to “gateways” are generally made in two halves or leaves, folding or meeting in the centre of the gateway when both leaves are closed. When the gate is large and heavy, and the courtyard or other place to which it leads is approached by an arched opening or a passage, hollow quoins or recesses are made in the side walls of the opening into which the two halves face or lie when the gateway is free, thus allowing the two leaves of the gate to lie flush with the wall surfaces and give a full clear entrance or a passage to vehicles. These recessed parts into which the gate leaves pass are known by various names—as recess for gate, off-set or panel or chamber. Syn. Fr. *Retraite pour les vantaux*—pron. reh-trayt poohr leh vahntoe: *retraite* is a recess, a vacancy, and *vantaux* is the plural of *vantail*, which means the wing of a folding door. In place of the word *retraite* that of *enclave* is also used—pron. ang-klahv—signifying a thing enclosed (from *enclaver* [ang-klah-vay], to enclose). Syn. Ger. *Wendeloch*—pron. venn-deh-loch—i.e. the turning (in) place, (from *wenden* [venn-den], to turn, to direct to, and *Loch*, a hole or cavity); also *Thorkammer*—pron. tohr-kam-merr—i.e. the chamber for the door.

Gathering, in Masonry and Bricklaying. The diminution or taking in of a chimney flue in domestic buildings, etc., to bring it from the large dimensions at or above the fireplace to those of its regular or desired size. (See Chimney, Chimney Flue, and Chimney Piece; also Flue, Fireplace.)

Gauge, in Joinery. A small tool or appliance for measuring or marking off on boards lines parallel to their sides, which are to serve as guides in sawing them up or otherwise working them. The gauge consists of a tailpiece or rod some six or eight inches long and three-quarters of an inch wide, square in section, with one side generally slightly rounded off. On this a square piece or “head,” two or two and a-half inches on the side, can be made to slide to and fro along the rod or stalk, and can be fixed at at any desired point of its length by driving up a small wedge with head. To the flat side of the tail or rod a sharp-cutting metal edge—generally a nail driven in and its extremity sharpened—is fixed, and the distance of this from the face of the sliding square piece measures the distance of the

line which the metal cutting edge marks off on the face of the board, the square piece running along the outer edge of the board while the marking or gauging is done. Syn. Fr. *Tracequin*—pron. trahs-kehng; Ger. *Parallelmass*—pron. pah-rah-layl-mahs (*Mass*, a measure)—i.e. a parallel (line) measure.—“*Gauge*, to take the, of,” is to measure the size of a piece or to measure the distance of a line from a given point. Syn. Fr. *Prendre la mesure* or *Prendre les dimensions* (*prendre*, to take)—pron. prahng-derr lah may-zuuhrr, or leh dee-mang-see-ohng; also *Jauger*—pron. jhoh-jhay, to gauge; Ger. *Messen*, to measure—pron. mess-en.—“*Gauge*” is also applied as a technical term in Slating, the “gauge of a slate” indicating its size or dimensions in length and breadth. Syn. Fr. *Dimension d’une ardoise*, a slate—pron. ahr-dwahze, or simply *Pureau*—pron. puhr-oh; Ger. *Dachschiefermass* (*Schiefer*, a slate, and *Dach*, a roof—*Dachschiefer*, a roofing slate)—pron. dach-shee-ferr-mahss.—*Gauge* is also used in connection with pieces of timber to denote their dimensions, or what is technically called their “scantling.” Syn. Fr. *Équerre dimension* (*équerre*, square)—pron. eh-qweerr de-mang-see-ong; Ger. *Holzmassen*.

Gauged Arch, in Bricklaying. In this the bricks are so laid that the joints all radiate from or converge to a common centre if the arch be semicircular or segmental, or to the respective centres if it be Gothic, or the foci if elliptical.

Gauze Wire. A metallic material composed of thin wire worked in a fashion to represent the woven textile or fibrous fabric known as gauze. A sheet of it extended and placed within a frame of wood is often used as an inner blind for a window. It is also employed frequently to cover ventilating openings in walls, to secure the diffusion of the air by causing it to pass through its “meshes.” Der. Some authorities state the word to be simply a different mode of spelling the French word for ordinary gauze which is *gaze*, the “u” being inserted in our word in order to give the French pronunciation, which is precisely the same as in ours, or gawz. Others maintain that it is derived from the Latin word *gausapum*, a woven cloth (from *gossiponus*, made of cotton); *gossippum* is the botanical name of the cotton plant. Syn. Fr. *Gaze de fil métallique* (*fil*, a thread or wire)—pron. gawz deh feel may-tahl-eek; Ger. *Draht-gaze* (*Draht*, wire, *Gaze*, same word as the French)—pron. draht-gah-zeh.

Gilder, in Building Decoration. A trade generally associated with carving work, as the well-known business or trade “carver and gilder.” A large portion of the trade as ordinarily carried on is connected with the decorative ornaments attached to picture,

frames, glass or mirror-frames, and the like. These are generally made of stucco or plaster of Paris, or of a composition which softens with heat, and moulded, being attached to the frame they are designed to ornament or decorate by a cement, and the surface gilded. Such ornamentation is only in expensive and superior work carved in the true sense of the term—that is, cut out according to a preconceived design of the artist on wood from the solid. Carving in this sense was much more followed in the last century as a means of house decoration, as in panelled work, framework, cornices, chimneypieces, and the like, than now. The English school of carving reached its highest development at the hands of the celebrated artist carver Grinling Gibbons, of whose work perhaps the finest specimens met with are to be seen at Chatsworth, in Derbyshire, the seat of the Duke of Devonshire. Carving in the true artistic sense is now, it is right to state, being revived as an art trade, and this under the auspices of the South Kensington School of Design, aided liberally by one of the City of London guilds or corporations. Der. (of the term carve). From the Old English *corfan* or *coerfan*, to cut, or from the German *kerben*, to cut or notch. A carver, in the combination named at head of this article, deals with wood almost exclusively, and in this sense the French synonym is *Sculpteur en bois* (*bois*, wood)—pron. scuhlp-tuehr ahng bwah. A carver in stone is generally a mason of superior and artistic ability. A carving or an assemblage of carved subjects in wood is *Sculpture en bois*. Wood carved is *Bois sculpté* (from *sculpter*, to carve, to sculpture)—pron. skuelp-tay, and this from the Latin *sculpo*, I cut or carve. The German synonym for carver generally is *Bildschnitzer*—from *Bild*, an image, a picture, a form or figure, and this from *bilden* (bill-denn), to shape, to form, and *Schnitzer* (shnitt-serr), a carver, and this from *schnitzen* (shnitt-senn), to cut or carve. A carver in wood is *Holzbildschnitzer* (*Holz*, wood).

Gilding. The laying-on of or covering with gold leaf, surfaces either carved or otherwise ornamented or plain in buildings. Der. (of gild). From the Old English *gildan*, and this from *gealew*, signifying yellow. Syn. Fr. for “gilder,” *Doreur*—pron. dohr-euhr—from *dorer* (doh-reh), to gild, and this from *Or*, gold, with the prefix *de=d’or* (dor): gilt is *doré* (doh-reh); gilding is *dorage* (dohr-ajh); Ger. syn. for gilder, *Vergolder*—pron. ferr-goll-derr (from *vergolden* (ferr-goll-denn), to gild. Gilding is *Vergoldung* (ferr-goll-duhng).

Gimlet, in Joinery and Cabinet Work. A small tool or appliance used to make holes or

apertures in wood to "enter" (see Entering) and drive home—by a screw-driver—screw nails. It may be said to be a little or miniature auger (which see), worked by one hand, in place of two as in the case of the larger implement. *Der.* From the French word for the tool, *gibet*, of which our word is evidently a corruption. Syn. Fr. *Gibet* —pron. jhee-beh-leh; Ger. *Schraubennagel-bohrer* (from *Schraube* [shrow-beh], a screw, *Nagel*, a nail, and *Bohrer*, a borer)—pron. shrough-benn-nah-gell-bore-err; also and simply *der Bohrer*, the borer; also *Zwick-bohrer* (*Zwick*, pinch or nip)—pron. tzvick-bore-err.

Girder, in Carpentry. A large beam is so called, as the beam in a floor, which carries or supports the binding joists. Generally the term is applied in work where the beam is of dimensions larger than those usually employed in ordinary work (see Bressummer or Brestsummer). *Der.* From the Old English word *girdan*, to bind round, from which comes our word girdle. Syn. Fr. *Poutre transversal* (*poutre*, a beam, *transversale*, across)—pron. pooh-terr trahns-vairr-sahl; also *Longrine*—pron. longh-reen; Ger. *Bindebalken* (from *binden*, to bind, and *Balken*, a beam)—pron. bin-deh bahl-kenn. Girders are often made of cast iron, and also—which give a much higher class of work—of wrought or plate iron. Syn. Fr. for cast-iron girder, *Poutre en font* (see Cast Iron)—pron. pooh-terr ang fonght; Ger. *Gusseisenbalken*—pron. gooss-izen-bahl-kenn. Syn. Fr. for a wrought-iron girder, *Poutre en fer*; Ger. *Eisenbalken*, literally "iron beams"—that is, of wrought or malleable iron, as cast iron is not named.

Glass, in Glazing. The transparent substance used for filling in window sashes or frames, for the purpose of admitting light and yet excluding the weather. *Der.* (of the word generally). From the Old English *glæs*, glass, or from the German *Glas* (see below). Glass as used for building purposes, as in domestic buildings, is of various qualities; the common or ordinary glass is simply designated as "window glass." Syn. Fr. *Glace*—pron. glass (from *glacer*, to glaze); Ger. *Küchenglase* (from *Küche*, a kitchen—that is, common room glass)—pron. kuech-enn-glass, and *gleissen*, to shine—pron. glice-enn. For superior rooms what is called "plate glass" is employed in filling in the window sheets or frames. This is made of very large dimensions, beautifully uniform in colour and surface, very thick and strong. Syn. Fr. *Glace coulée* (from *couler*, to flow, signifying that the glass is cast or run out in a molten condition to form the plate)—pron. glass koo-leh; Ger. *Spiegelglas*—literally a looking-glass, signifying that the glass is of the superior quality required for

mirrors (from *spiegeln* [spee-geln], to reflect)—pron. spee-gull-glass. Frosted or obscured glass has its surface covered over with excessively minute dots or points, which are produced by friction with sand; hence the German synonym is *das sandige Glas*—from *Sand* (sand). The French synonym is *Verre pointu*—that is, pointed glass—pron. vairr pwung-tueh. Glass painted or stained with colours: Syn. Fr. *Verre avec couleur*—pron. vairr ah-vekk koooh-leuhr; Ger. *buntes Glas* (*bunt*, variegated, coloured)—pron. boon-tess-glass.

Glass-paper, in Joinery and Cabinet Making. Sometimes and in some districts exclusively called sand-paper. A paper on which pounded or powdered glass of varying fineness of particles is uniformly strewed, and permanently secured to the surface by a cementing substance. The paper thus prepared is used to give a smooth, finished, and partially polished surface to joiner's and cabinet-maker's work. Syn. Fr. *Papier verre*—that is, glassy paper—pron. pah-pee-eh vairr; Ger. *Glaspapier*—pron. glahs-pah-peerr.

Glazier or Glazer, in Building. The workman who selects, cuts to determinate sizes or dimensions, and fixes the panes of glass into the window "sheets" and frames. *Der.* From the German (see below), or from the Old English *glæs* (see Glass). Syn. Fr. *Vitrier*—pron. vee-tree-eh (from *vitre* [vee-treh], to glaze); also *vitre* (vee-terr), a glass window, and both from *vitriifier* (vee-tree-fee-eh), to vitrify—glass being vitrified silica or sand. Glazed, as when a window is provided with its glass, is *vitré* (vee-treh). The different qualities of glass and appliances appertaining to its use kept by a glazier—in our language glaziers' stock-in-trade—is in French *Vitrerie* (vee-treh-ree); this is also the term for glazing. Ger. syn. for glazier, *Glaser*—pron. glah-serr (from *glasen* [glah-zen], to glaze). Glazing is *Glaseri*—pron. glaz-eh-rye.

Glue, in Joinery and Cabinet Making. A cementing substance made from entrails of animals, skins, etc. (see the section of the Dictionary "Applied or Industrial Chemistry"). It is dissolved in water and melted under a low and gently applied heat, and the solution is spread thinly over the surfaces of the two pieces of wood, etc., to be joined firmly together. There is great skill displayed in the art of gluing properly. *Der.* From the Latin *gluten* or *glutinum*, signifying glue, and this from *gluo*, I draw close (together). The term *gluten* is applied directly to one of the substances of wheat, and this from its adhesive, sticky nature. Syn. Fr. *Colle*—pron. koll. This is paste or size, as flour paste; but the term *colle forte* is used to designate joiner's glue, meaning a strong paste (*forte*, strong). The term *colle*

is from the verb *coller* (kol-eh), to paste, to glue. Syn. Ger. *Leim*—pron. lime (from *leimen* [lime-en], to glue, to paste together).

Glue-pot, in *Joinery and Cabinet Making*. An appliance, on the principle of the water-heating bath, by which the glue is melted without exposing it to an over-temperature or burning, as might happen if the pot were placed over an open fire. The glue-pot proper, in which the glue is to be dissolved, is suspended by its projecting rim from the mouth of an exterior pot of larger dimensions which is filled with water, this being placed on the fire or stove. The water surrounds the inner or suspended pot, heating its contents, the temperature of which can never exceed that of boiling water, or far below the scorching or burning point, which is always to be avoided in the making of good sound glue. Syn. Fr. *Pot à colle forte*—pron. poh-t ah koll fohrt; Ger. *Leimkessel* (*Kessel*, a kettle, or *Topf*, a pot, may be used as the final part of the term).

Gorge, in *Architecture*. A moulding better and more commonly known as the cavetto, a hollow concave moulding. It means the "throat," and is derived from the Italian *gorgo*, and this from the Latin *gurgus*, a gulf, deep hollow, or whirlpool. Our word gurgle comes from this. (For foreign synonyms see "Cavetto.")

Gothic Style, in *Architecture*. That style otherwise known as the "Pointed," and this from its chief feature the pointed arch, and generally by what may be called its aspiring character as evidenced in the extension or lengthening out of its pillars, the height of its windows, the great vertical height, and generally narrow face of its external buttresses, which are often terminated by slender pinnacles which shoot up and end in points more or less floriated. In all these, and in other features, numerous and important enough to take up the space of a treatise, the Gothic is distinguished from the Classical style—so called (for the features of which see under Grecian Style and Roman Style). Briefly, Gothic is vertical, Classical is horizontal in its character; Gothic implies freedom or flexure in its members, tending to endless combinations of line and form; Classical is formal, and so to say stiff, precise, and defined. Gothic architecture is generally classified into certain styles, as to the number and names of which authorities are divided in opinion. Following apparently the early writers on Classical architecture, who divided its "orders" into five (see Classical Styles), some writers make five Gothic styles—"Norman," "Transition," "Early English," "Decorated," and "Perpendicular"; other authorities reduce these to three—"Early English," "Decorated," and "Perpendicular"; while others, and perhaps those who

take the most philosophical view of the style, look upon the Decorated as the most complete, if not the only "True Gothic," the Early English being only a transition or early style, while the Perpendicular is, if not a debased, at all events a degenerated offshoot of the Decorated. Gothic is sometimes called the "Christian style of Architecture," inasmuch as it was in the mediæval ages, and is still, most frequently applied to buildings for public worship. Our finest examples, it is needless to say, are to be met with in cathedrals both at home and abroad.

Gouge, in *Joinery*. A hand-tool used for cutting out concave or hollowed parts. It may be described as a cutting chisel with a curved or bent in place of a straight-lined edge. The curved part extends upwards for some distance above the edge, so that a hollow is formed in the inside or concave part, to admit of the cuttings or chips being cleared away from the cutting edge. *Der.* Direct from the French word, which is exactly the same as ours, and this from the debased or Low Latin *guvia*, a gouge. Another term in French is *Ciseau croche*—pron. see-zoh krosch (*croche*, bent); Ger. *Hohlmeissel* (*hohl*, hollow, and *Meissel*, a chisel)—pron. hole-mice-ell.

Grain (of the wood), in *Timber*. Otherwise termed the "humour," meaning the marks or wavy and bent lines produced by the position and condition which the fibres assume on the face of a board or piece of timber. Wood of poor quality, such as American white pine, shows very little grain or humour, while the red pines are generally rich in it. The "humour" is brought out or the "grain" displayed in red pines very effectually and effectively by oiling or varnishing the surfaces. The parts having humour being of different density from the parts of the board without, absorb the oil in different degrees, and thus show a varied surface. The hard woods, such as walnut and rosewood, are generally rich in humour, and in addition to the difference of colour there is a difference in the grain or humour of those expensive timbers. The grain strictly defined is the direction in which the fibres run, and all timbers are worked easily and smoothly when worked in this direction, but the opposite is the case when they are worked in a direction opposed to that of the fibres. Hence the term "against the grain," implying that this is the most difficult and generally the wrong way of working. *Der.* From the Latin *gramum*, a seed, a grain, a kernel. Syn. Fr. *Fil du bois* (*fil*, a thread, which is more in accordance with the physical characteristic of wood, the fibres of which are thread-like, than our term grain)—pron. feel duh bwah; Ger. *Holzgran* (grain), *Holzfaser* (*Faser*, a fibre)—pron. holts-grahn,

holts-fah-zerr. An equivalent for "against the grain" in French is *direction contraire aux fils du bois* or *direction transversale aux fils du bois*.

Grain of a Stone, in Masonry. This term is synonymous with the quarry bed of a stone—that is, in the direction of the line of easiest cleavage, this being the direction which the stone lay in the stratum of rock from which it was quarried. Hence the French equivalent for the term, which is simply *lit*, a bed—pron. lee. The corresponding term in German for the bed of a stone (*lit* in French) is *Lagerseite*—i.e. the laying side (*Seite*, a side, and *Lager*, a couch or bed—pron. lah-gerr-zy-teh. The term is also used to indicate the character of the surface of the stone: if like some sandstones it is rough, it is said to be coarse grained; if like marble or freestone it works smooth, it is termed fine grained. The term grain, in view of its Latin derivation, is much more consonant with the character of a stone than with that of wood.

Graining, in Painting. The work done in imitating the humour or grain of different kinds of wood, as oak—known as wainscoting. Many of those imitations are purely conventional, being far from an imitation of the true grain of the wood. French equivalent, *Imitation de fil de bois*—pron. eem-ee-tah-see-yong deh feel deh bwah; German equivalent, *Malerei in der Holzmanier* (*Malerei*, painting, from *mahlen* [mah-len], to paint, *Holz*, wood, and *Manier*, style, manner, fashion)—pron. mah-lerr-eye in dare holts-mah-neerr.

Granary, in Farm Architecture. That apartment in farm buildings (which see) in which the grain, chiefly wheat, is stored up after being thrashed, and from which it is taken to be cleaned or dressed for market. It is in a well-designed farm-steading placed in close contiguity to the thrashing-machine room, if thrashing out the grain be done by a fixed machine. The granary requires to be carefully constructed, so as to be as far as possible vermin proof, well ventilated, and should be well floored to afford facilities for turning over the grain as it lies on the surface of the floor. In *Breweries* the apartment in which the barley for malting is stored up is known by the name of granary, so also those enormous warehouses at shipping ports in which "food stuffs"—wheat and Indian corn chiefly—are stored up, the supplies coming from foreign parts. *Der.* From the Latin *granarium*, a place for storing grain, and this from *granum*, grain. Syn. Fr. *Grenier*—pron. grenn-ee-eh; Ger. *Kornkammer* (*Korn*, grain—our word corn comes from this or directly from the Old English corn, signifying the grain of wheat chiefly, although in Scotland "corn" considered as a farm grain is the term applied

to oats; this also usually in the language of the stable throughout other parts of the kingdom, "corn" being universally understood to mean the grain given to horses, which is the grain of oats)—pron. korn-kam-merr.

Granite, in Building Materials. A valuable building stone, especially durable and hard, capable of a high polish on its surface. It is the most difficult of all stones to work. Its chief sources are the quarries near Aberdeen, in the north of Scotland, which have a higher reputation than those of Devon or Cornwall, from which also supplies are obtained. The two qualities of granite are known as the red and grey, the latter often called blue granite. Geologically granite is composed of quartz, which is almost a pure silica and makes the great bulk of the rock or mass; felspar or feldspar, which gives the peculiar characteristics to the stone; and small portions of mica, from which is derived its shining or glistening character. A species of granite of a peculiarly durable character is known as syenite (which see). *Der.* From the Latin *granum*, grain, and this from the granulated appearance the surface of granite possesses. Syn. Fr. *Granit*—pron. grah-nee. The German word has the same spelling, but is pronounced grah-neat.

Grating, in Building. A framing, almost universally of cast iron, the interior space of which is occupied with a reticulated or network series of apertures, or with rectangular openings parallel to each other, and formed by parallel bars. Sometimes, as in gratings used to cover ventilating apertures, the holes in the grating are formed by some combination of lines ornamentally disposed. The grating is used to cover apertures or open spaces in a pavement covering the well-hole, which gives light to the window of an apartment placed below the level of the pavement. The term grating is also applied to the cast-iron, open-surfaced framework fixed in the mouth of a drain, or of what is called a gully hole (which see). Small gratings used to roadside or street-side drains are often known as grids. *Der.* Some authorities hold that the term is derived from the Latin *cratus*, a hurdle or crate, the sides of which are of open work, like a grating. Syn. Fr. *Grillage*—pron. gree-yah—or *Grille* (from *griller*, to shut up or enclose; Ger. *Gitter*, a grating or trellis (from *gittern*, to lattice or fill up with crossbars)—pron. gitt-terr.

Grecian Style, in Architecture. This, the true classical style, from which all the other styles which range themselves under and claim to be but different classes of that general style so called ("classical"), was originated by the Greeks, and obtained at their hands that high development which

made the public structures of the Grecians the admiration of the world, and of which even the shattered and ruined remains display a beauty of form and of exquisite proportion which seems from the innumerable fashions of more modern times to be unattainable by architects and builders who have followed in the steps and imitated the works of their Grecian brethren of old. Some authorities maintain that the Greeks derived their knowledge of architecture from the Egyptians (see "Egyptian Style"), and also, at least many of its minor details, from the Etruscans; but if so, by their wonderful artistic genius they so improved what they did borrow as to form in fact a style so peculiarly their own as to entitle it to be classed as one altogether new. As compared with its great rival in modern times, the Gothic style (which see), Grecian architecture is characterised by its horizontal features, by the beautifully proportioned and, as in the Ionic and Corinthian styles, the effective and richly decorated details of its columns. These latter members are used so frequently and with such effect as to entitle the style generally to be designated as columnar. Other features are the large flat spaces, the cornices and entablatures, more or less richly decorated with mouldings, which latter are in themselves quite distinguished by their contour and disposition from the mouldings used in the Gothic style. The three orders of the Grecian style of architecture are the "Doric," "Ionic," and "Corinthian" (which see).

Grid, Coal. An iron plate which closes up the aperture, as in a pavement, leading to the "shoot" or passage by which coals are sent down to the coal-cellar below. The name is apparently a corruption of the word gridiron, as coal grids were formerly and are still sometimes made with apertures or spaces like those in a gridiron.

Grindstone. The appliance or tool by which edge tools are rough sharpened, the fine edges being put on after the grinding is finished by means of the "whetstone" or "set-stone" (which see). The grindstone is a circular disc or drum of varying diameter and breadth on the face, or thickness, formed out of a peculiar kind of close-grained sandstone. The disc is provided at its centre with a short shaft or spindle, the journals of which revolve in bearings secured to the sides of the framing—in common cases of wood, in superior work of iron—which carries the grindstone. A motion of revolution is given to the stone by means of a winch or handle worked by the hand and arm, or a crank is connected to the spindle and this is worked by the foot with treadle and connecting rod. If the stone is worked by power, "fast and loose pulleys" are provided to the spindle, and

the stone driven by belt. Where power-driven, and where a high velocity may be attained, to prevent accidents from the flying asunder of the stone through the centrifugal force exerted, the stone is "shrouded" or enclosed within an iron case, part only of the face of which is left open, to afford access to as much only of the grindstone as is necessary for grinding the tool—water being used during the process to prevent the metal of the tool being over-heated, and its "temper" destroyed by the heat otherwise created. Syn. Fr. *Pierre à aiguiser* (*aiguiser*, to sharpen, to whet—pron. ah-gueze-eh); Ger. *Wetzstein* (from *wetzen* [vett-senn], to sharpen or whet, and *Stein*, a stone), or *der Schleifstein* (from *schleifen* [shlife-enn], to grind, to polish).

Groin, in Masonry. The angular carved edges formed by the angles of the intersection of vaults which cross at equal heights or at the same level: externally the angles form raised parts or ridges, internally hollows or recessed parts. In Gothic vaults the angles are covered or concealed by mouldings. Der. From the Swedish *gren*, a branch. Syn. Fr. *Arête*—pron. ah-rate (*arête* is an edge; it may probably be derived from *arrêter* [ah-rett-eh], to stop or arrest, the arches of the vaults being stopped at the points or lines where they intersect; *arête* is also a fish-bone, the lines of the intersecting angles radiating somewhat like the spikes from the central part of the bone); also our word *Groin*; Ger. *Grathbogen*—pron. graht-boh-genn (from *Grath*, an edge, or *Gräte* [gray-teh], a fish-bone [see above], and *Bogen*, an arch)—literally an "edged arch."

Groove, To, in Masonry, Carpentry, and Joinery. To cut a hollow part in the face or on the edge of a block of stone or a piece of timber. Generally the form of the groove is rectangular, with sides square to bottom. Sometimes the groove is curved, as in Flutes (which see). Grooving is a very important part of joiner's work. Der. From the Old English *grof*, a ditch, and this probably from the Danish *groeve* (from *groeben*, to dig). Syn. Fr. *Faire une rainure* (from *faire*, to make, and *rainure*, a groove)—pron. fair uuhn ray-nuhr; grooving generally is *Evidement* (from *evider* [eh-vee-deh], which also means to groove)—pron. eh-veed-mahng; Ger. *Falzen* (from *Falz* [faltz]—pron. phal-tzenn).

Groove and Tongue, in Joinery (and one of its most important pieces of work). In joining two pieces of timber, as two flooring boards, edge to edge, a groove or channel—ploughed is the technical term (see Ploughed and Tongued)—of rectangular form is cut in the centre of the edge or thickness of one piece, while a projecting part is formed on the centre of the edge of the other—the breadth or thickness, and the depth or

amount of projection being equal to the width and depth of the groove. The projecting part is called a "tongue," and when it is inserted and driven or pressed—clamped (see Clamp)—"home," the two pieces are united. Syn. Fr. for the "groove" *Rainure*—pron. ray-nuhr; for the "tongue" *Langnette* (from *longue* [lûng], the tongue)—pron. lahn-gett; Ger. for the "groove" *Spund* (from *spunden* [spuhn-denn], to groove together); for the tongue *Zunge* (tsoong-eh), or *Zünglein* (tsoong-line), or *die Feder*, feather (which see). A groove with curved hollow spaces, as in the flutes of a column or pilaster, is in French a *Cannelure*—pron. kahn-eh-loor (from *canneler* [kahn-eh-leh], to channel; Ger. *Kehle*, a flute or rounded channel—pron. keh-leh (from *kehlen* [keh-lenn], to channel).

Ground Colour or Grounding, in Painting. The first coat of paint put on a wall to receive the other and finishing coats. The term is sometimes applied to the killing of the turpentine in knots in woodwork by painting them over with red lead.

Ground Floor, in Domestic Architecture. The lowest story of a house, which enters immediately from the street or road. It is not to be confounded with a cellar or basement plan of a house, which is literally the lowest floor of a house. Syn. Fr. *Rez de chaussée* (see Ground Plan for pronunciation and meaning); Ger. *Erdgeschoss*—pron. airrd-geh-shes.

Ground Line, in Plans of Domestic Buildings. The line shown in sections to indicate the relation of the level of site or surrounding ground to the level of the floors. Hence it is often termed ground level. Syn. Fr. *Ligne horizontale de terrain naturel*—pron. leeng orr-ee-zon-tahl deh terr-aing nah-tuh-rell; Ger. *Grundlinie* (*Grund*, ground, and *Linie*, a line)—pron. groohnd-lee-nee-eh.

Ground Plan, in the Drawings of a House or other Structure. The plan which shows the arrangement of the rooms, etc., in the lower story, immediately entered from the level of the ground or site. Syn. Fr. *Plan de rez de chaussée*—pron. plahng deh ray deh show-say (*rez* means on a level with, and *chaussée*, causeway)—i.e. the street or road; Ger. *Erdgeschoss* or *Parterre* (from *Erde*, earth, or ground, *Geschoss*, story, and *Riss*, a sketch or plan).

Ground Sill or Plate, in Carpentry. The lowest member or beam of a framing, forming the base on which the upper parts rest, and by which they are carried. Syn. Fr. for the sill of a partition *Sablère*—pron. sahb-lee-air (this also means a sandpit). The term is derived from *sable*, sand or gravel, signifying that the beam being the lowest lies or is placed upon the soil, sand, or gravel. Another term is *Poutre dorman*—pron. pooh-terr dohr-mang—that is, a

lying or sleeping beam (hence our term "sleeper" for a beam similarly placed), and this from *dormir*, to sleep—pron. dohr-meer; Ger. *Unterbalken* (*unter*, under, and *Balken*, a beam)—pron. oon-terr-bahl-kenn; also *Unterschwelle*—literally the "under sill" (from *Schwelle*, a sill, also a threshold—pron. shwell-eh), probably from *schwellen*, to raise up, as a sill raises or keeps up the other members of the framing—pron. shwell-enn.

Grounds, in Joinery. Pieces of wood built into the walls, generally of the dimensions of a brick (see Bricks) in brick walling, so as to bond in with the bricks. The "grounds" are placed at sides of doors and at places where the wood fittings, such as architraves, skirtings, etc., etc., are nailed.

Grouting, in Masonry. The pouring in of a thin mortar or cement into the interior part of the walls, generally filled in with hard-setting mortar; the mortar runs freely into the spaces between the stones, and when it hardens binds the stones together. Syn. Fr. *Mortier délié* (*mortier*, mortar, *délié*, thin or fine)—pron. mohr-tee-ay day-lee-eh; Ger. *dünne Mörtel* (*dünne*, thin)—pron. duen-neh mohr-tell. Grout for covering vaults or arches: Syn. Fr. *Chape*, a coat or covering—pron. shahp; Ger. *Bedeckung*, covering—pron. beh-deck-oong.

Guilloche, in Architecture. A species of fretwork, but in which there are two or more bands, and which interlace with each other or intertwine, forming a pattern more or less intricate. The term is applied also to fret or open work, in which the lines are curved in place of being straight as in the true fret, or partly curved and partly straight. Syn. Fr. *Guilloche*—pron. gwee-losh.

Gully or Gully Hole, in Drainage Work. The entrance, as from a street side drain or gutter to the conveying drain, is so called (see Grating). Der. Supposed to be derived from a corruption of the French verb *couler* (koo-leh)—hence "gully"—to flow. Syn. Fr. *Entrée d'un égout*, entrance to a drain—pron. ahng-treh duhn ay-goo; Ger. *Abzugöffnung*—pron. ahh-tsoog-oeff-noong.

Guttes, in Architecture. The small pieces of triangular shape, or small truncated cones, used in the Doric order under the triglyph (which see), which are so called from their supposed resemblance to drops. Der. From the Latin *gutta*, a drop. Syn. Fr. *Gouttes*—pron. gootte or gooh— a drop; Ger. *Tropfen* (from *tröpfeln*, to drop).

Gutter of a Roof, in Carpentry or Joinery. The channel, formed of timber generally, placed at the lower part or eaves of a roof, to arrest the rain water as it drops or trickles from the surface of the roof. Der. From the French term *gouttière*, a name for the part—pron. goo-tee-air; Ger. *Rinne*—pron.

rin-neh. The gutter or kerbstone of a street is *Rinnstein*. Gutters are now frequently made of tiles, as the valley gutter between two inclined roofs. The French synonym is *Tuile de gouttière*—pron. tweel deh gooht-e-air. When tiles are used to form the gutter at the junction of the two parts or sides of a hipped roof, the tile used is called a pan-tile; in French *houe*, a pan-tile—pron. hoo.

Gypsum, in *Building Materials*. A lime in the form of a sulphate, and which is

popularly known as plaster of Paris. It gives a plaster or cement of extreme hardness, and which "sets" almost, so to say, immediately. Syn. Fr. *Pierre de Plâtre*—pron. pee-air deh plah-terr; Ger. *Gyps*—pron. gips. The English pronunciation is the "g" soft, as djip-summ or jipp-sum; it is, however, by some scientific men pronounced with the "g" hard. Our term is a purely Latin one, being the same word in both languages. The Greek is *gupsos*.

H.

Hack or Heck, in *Building*. The pronged tool employed to mix hair mortar and also the clay used in brickmaking with—the prongs being dragged and pushed to and fro amongst the material to mix it well—is sometimes so called. It is in form something like a garden rake, but with three prongs generally, and those of considerable length, spaced pretty widely apart, and curved in the direction of their length. Der. It is obviously derived from the Old English word *haccan*, to hew or separate in pieces. It is met with in the word "hackle," an appliance used to separate and open up the fibres of hemp or flax, and which is a species of fixed comb with long projecting wires.

Hacking, in *Masonry*. An irregularity in the courses is so called, arising from the stones being not of uniform size, and therefore not giving a surface uniform in level.

Hacking Out, in *Glazing*. In taking out a broken pane of glass from a window sash, the freeing of the edges from the putty fixing and sash bars and window frame is called hacking out. It is done with a dull-edged knife and hammer. Syn. Fr. *Couper le vitre d'une fenêtre*—i.e. to cut out the glass from a window—pron. kooh-peh leh veater doohn feh-neh-ter; Ger. *Fenster-glas ausbrechen*, to hack or break out the window glass—pron. fen-sterr-glass owss-brekh-enn.

Haft in Tools, not *Heft*. The wooden handle with which the steel tools, as the chisels or the heads of hammers, are provided, and by which they are worked. Wood is employed for the purpose, not merely because it is more pleasant to the hand in working, but because its surface affords a better "grip" or hold of the tool than a smooth metallic surface would afford; and further, because, as in some tools with long hafts or handles, such as hammers, the elasticity or "spring" is of service in working. In chisel tools and the like, the hafts or handles are made tapering, the tongue or tail of the tool being driven up at the small end, and the end of the haft is strengthened and protected and prevented

from splitting by being embraced with a metal—often brass—ring termed a ferrule (which see). Der. From the Old English word *haftan*, to seize, lay hold of, or take or grip. Syn. Fr. *Manche* (or *Poignée*) *d'un outil* (*manche*, handle, *outil*, tool)—pron. mahnh duhn oo-teel; Ger. *Heft* (from *heften*, to fasten).

Hair Mortar, in *Plastering*. A mixture of lime and hair—generally horsehair, as the stuffing of old chairs, sofas, etc.—used to form the first coat in plastering, and also in floating (which see). It is sometimes termed "lime and hair," sometimes "coarse stuff" (which see). Syn. Fr. *Mortier avec cheveu* (hair)—pron. murr-tee-ay ah-veck shevv-uuh; sometimes *Mortier blanc*, or white mortar, or that used for plastering, to distinguish it from the ordinary mortar used in brick or stone setting; Ger. *Haar-mörtel* (hair)—pron. hahr-moerr-tell.

Half-lap Joint, in *Carpentry and Joinery*. So called from half the thickness or depth of two pieces of timber to be joined being cut off for a certain length at each end leaving a projecting part of one-half the depth of the piece. When the two projecting pieces are laid face to face, they together make up, by thus overlapping each other, the thickness of the piece. They are then secured together by glue, pins, bolts or straps. Der. The word "half" is from the Old English *healf*, the half or equal portion of a piece divided into two; "lap" is also from the Old English *lappa*, a border or edge or end. Syn. Fr. *Le bois bout à bout*—pron. me-bwah boo-tah boo—meaning "half wood end to end"—*mi* being a contraction of *moitié* or *demi*, both signifying half.

Hall, in *Domestic Architecture*. A term having several significations varying widely in character. Thus it is frequently used to designate a large domestic building, which would otherwise be termed a "maison," a "lodge" or "villa"; usually in rural districts it is employed to distinguish the dwelling-place of the lord of the manor or the wealthiest inhabitant, as "— Hall," generally "The Hall." In another sense it was



Fig. 3

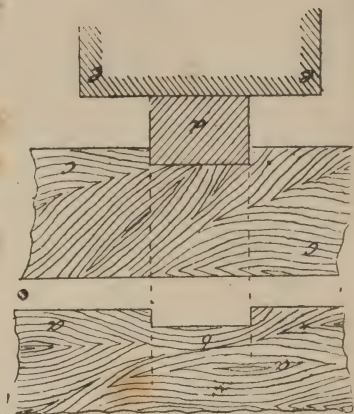


Fig. 2

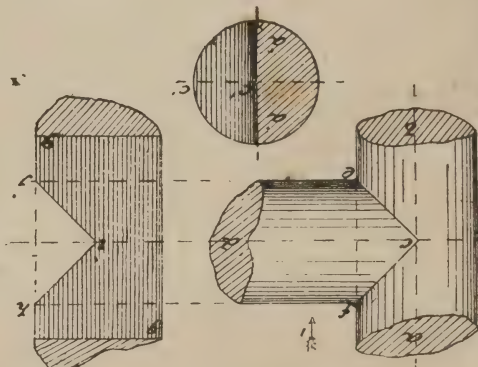


Fig. 1

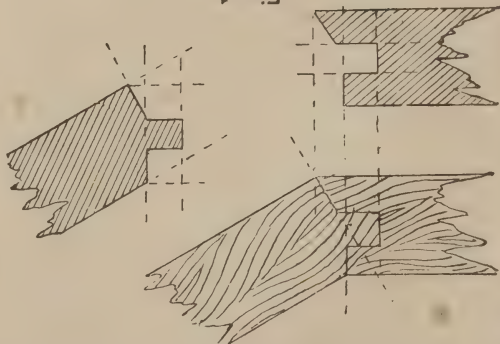


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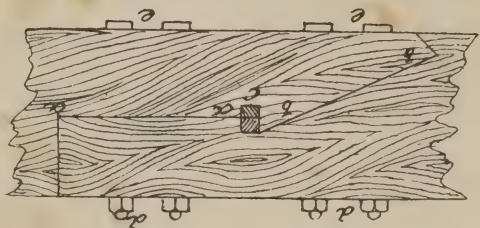
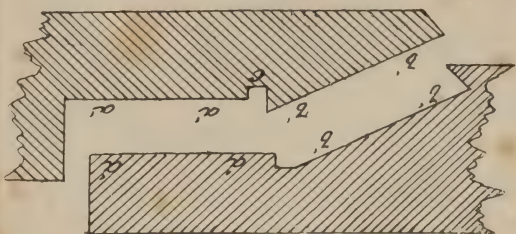


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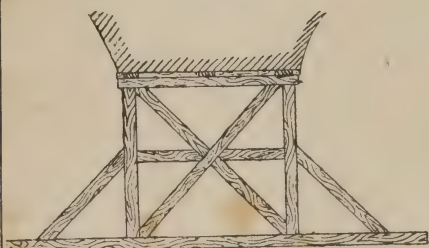


Fig. 4



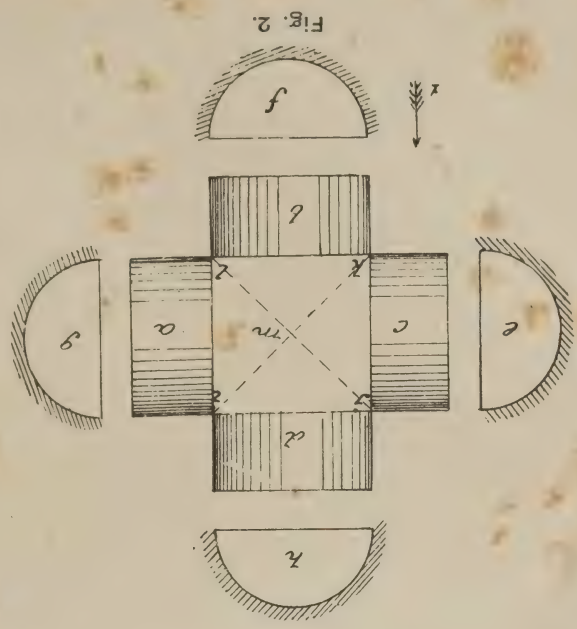


Fig. 2.

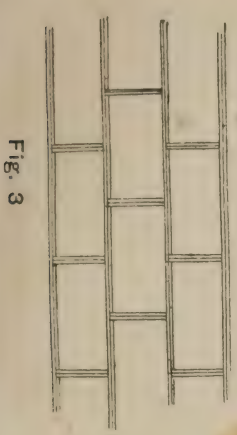


Fig. 3

Fig. 1.

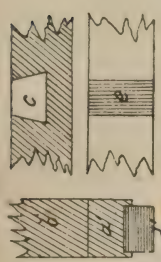
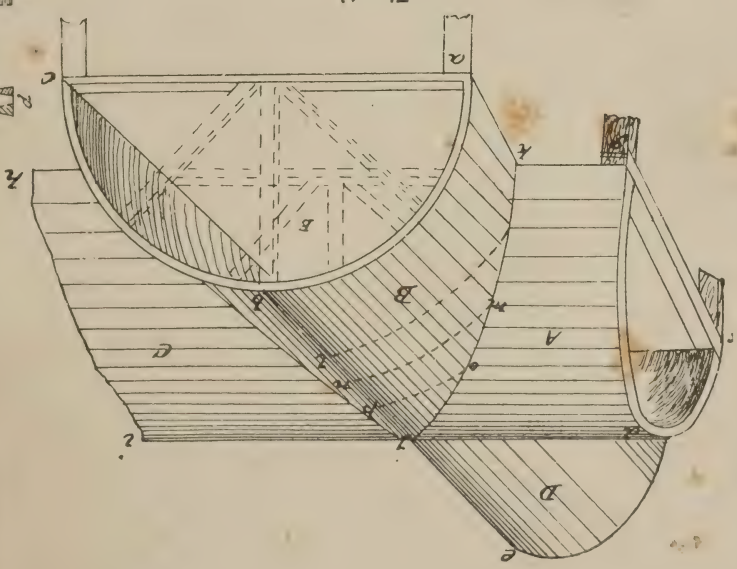
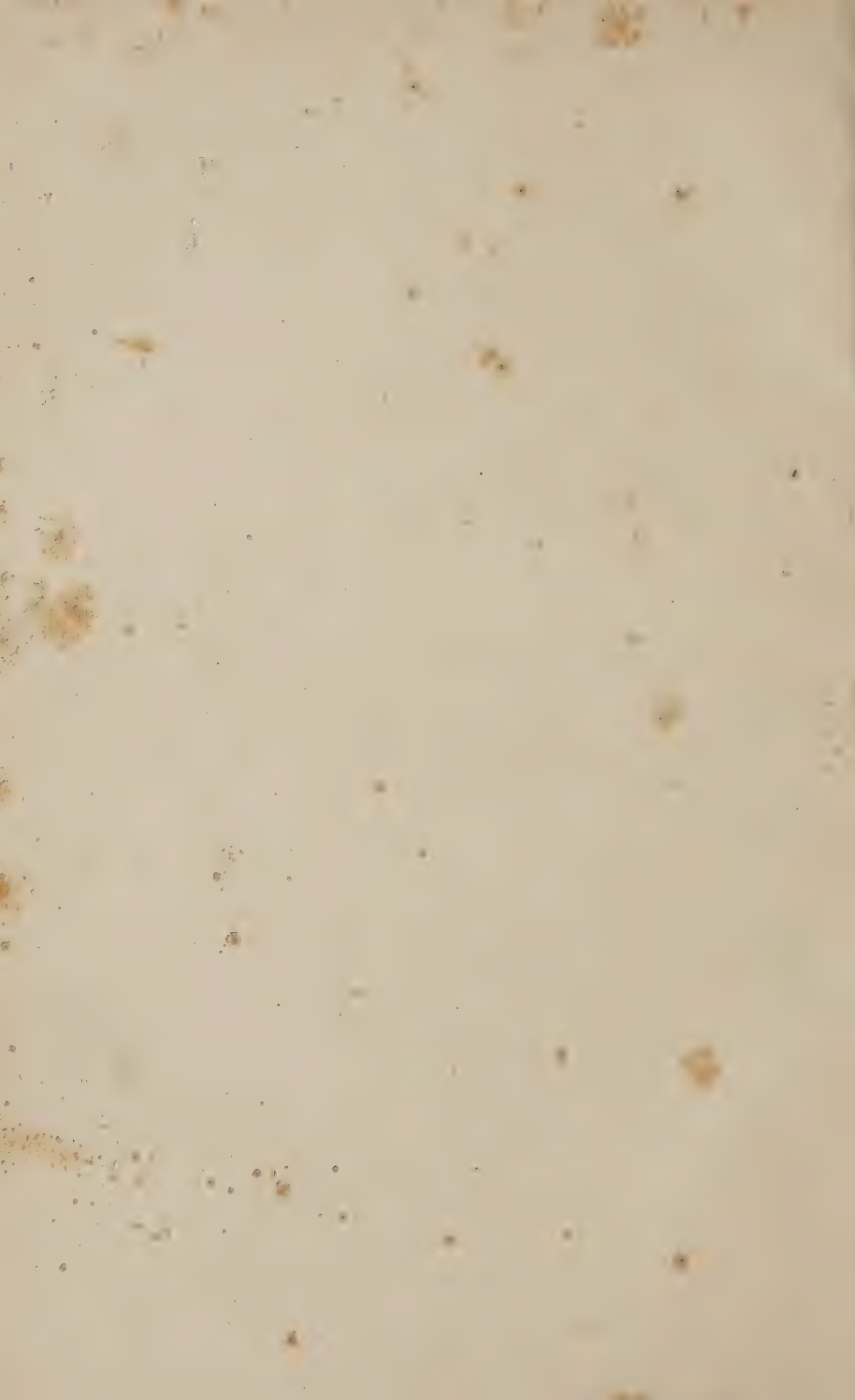


Fig. 5



Fig. 4



the term employed in mediæval domestic architecture, and in that of a later date, the buildings of which are now looked upon as "old," for the apartment, the largest in the structure, in which the "lord and lady" dined and made their public appearances. At one end of this, and across the hall, a part was elevated above the ordinary floor level, to which the name of "dais" was given, and which was appropriated to the entertainers or host and hostess, with their more favoured guests; the tables for the "meaner guests" and retainers being placed along the hall at right angles to the dais. This "hall," or "great hall," was generally approached through a lesser apartment termed the "entrance hall," this leading to the various parts of the house, castle, etc. Hence the application of the term to our modern architecture, denoting the part first entered. In structures of considerable pretensions this "entrance hall" is not reached immediately from the outside, the lawn, the carriage drive or approach, but is preceded by a still smaller apartment or space, to which is given the name of "vestibule," this being divided from the entrance hall, which is simply in such cases called "the hall," by a glass or screen door. In houses of large size the hall has large floor-space, and unless the staircase be made a special feature—in which case it is termed a "grand staircase"—it is kept out of view, so that the hall can be kept for its own particular decoration and furnishings, and doors opening to apartments or passages are alone admissible in it. In houses of smaller dimensions and less pretensions, the "entrance hall" so called contains the staircase generally, but not always, at one side, in which case it is single; if centrally placed, it is a double staircase. In houses of still more humble pretensions the entrance hall as a term is discarded, though in some cases grandiloquently retained, and it is simply known as the "lobby" (which see). The term "Hall" is often employed to designate the large apartment in which public meetings are held, of which many examples will be familiar to the reader, as Exeter Hall, St. James's Hall, and the like. It is also, though much more frequently on the Continent than with us, applied to public markets, as the "market hall." The French synonym is *Salle*—pron. *sall*; Ger. *die Halle* or *das grosse Zimmer*—pron. *dee hahll-eh*, *dass gro-say tzim-mer*. The market hall: Fr. *Halle*—pron. *hall*; Ger. *Markthalle*—pron. *marrkt-hahll-eh*. For an entrance hall to a private house the French synonym is *Vestibule*—pron. *vess-tee-buhl*, a suspicion of the sound of our *a* being in the first syllable *e*. If several apartments lead out from the hall on both sides, the hall taking the form of a long passage, it is called a *Corridor*, which, both in spelling and in

pronunciation, has been imported into our language—*korr-ee-dorr*. In French an entrance to a private apartment is called *dégagé*—pron. *day-gah-jeh*. This in German is *Privateingang* (entrance hall *Flurgang*)—*pree-vaht-eyne-gahng*.

Halving, in Carpentry and Joinery. A term sometimes used in scarfing (which see). The French synonym is nearly the same as that for half-lap (which see) with the word "assemblage" prefixed—pron. *ah-samm-blahj*: sometimes the term is *assemblage à paume*—pron. *pohm* (the palm of the hand); the two pieces being placed together as the hands are placed palm to palm; Ger. *Ueberschneiden* (literally "an overcutting"), from *schneiden*, to cut—pron. *ue-berr-shny-denn*.

Hammer, in Tools. An implement for driving in nails or giving blows, or a series of impacts, to bodies used in construction. It is composed of two parts, the head and the handle. The head is universally made of iron, with flat ends or faces; or of faces with different forms, sometimes made of steel. Between the ends a slot or aperture is made, into which the end of the handle is passed and secured by wedges. The handle is of varying length, proportioned to the weight of the head, is made of some elastic wood such as hickory, and is shaped into an elliptical form in cross section and polished on surface. When the head is made of wood the implement is not termed a hammer, but a mallet (which see). *Der*. The word hammer is taken from the Old English *hamer*, and this from the Old Norse word *ham*, to strike. Syn. Fr. *Marteau*—pron. *marr-toe*; Ger. *der Hammer*. A small hammer in French is *Massette*—pron. *mah-sett*; Ger. *der kleine Hammer* (*kleine* [kline-eh], little). Joiners' and carpenters' hammers have one of the ends formed into a claw or two curved wings with a conical or tapering division between them. This is used to draw out nails from timber. The head and part of the shank or tail of nail is passed up to the narrow end of the claw opening, and the nail is "prised out" by using the head as a lever worked by the handle. The edges of the claws, which are made sharp, are used to prise up nails by going under their projecting head, and thus getting a grip of or purchase on them. The term Hammer-claw is in French *Pied de biche*—pron. *peay deh beesh*—literally "hind's foot" (*biche*, the hind); Ger. *Splitthammer*, cleft hammer or end split in two (from *splittern*, to split); also *Klauenhammer*—pron. *klow-enn* (from *Klaue* [klow-eh], a claw, or *klauen*, to claw or catch). To hammer in French is *Marteler*—pron. *marr-teh-lay*; also *Faire au marteau*—that is, to make or do with the hammer—pron. *fair oh marr-toe*; Ger. *hämmern*; also *schlagen*, to beat, to strike—pron. *shlah-genn*.

"Hammering," the act of striking with a hammer, is in French *Travailler au marteau*—that is, to work with the hammer (from *travailler*, to work, to labour)—pron. trah-vahl-yea oh marr-toe; also *Faire à coups de marteau*, to do or make by blows with the hammer—pron. fair ah coo deh marr-toe (*coup*, a blow); also more simply *Martelage*—pron. marr-teh-lahj; Ger. *mit dem Hammer arbeiten*—that is, to work with the hammer (*mit*, with, and from *arbeiten* [arr-bite-enn], to labour, to work, and *Arbeit* [arr-bite], work)—pron. mit dame ham-merr arr-bite-enn. "Hammered," or the act of hammering completed, is in French *Fait (done) au marteau*—pron. fay oh marr-toe; in Ger. *gehämmert*—pron. gay-hem-merrt.

Hammer Beam, in Carpentry. A member generally of a roof-truss of Gothic or high-pitched roofs. It is a strong beam built into the wall at one end, and projecting a short distance from it horizontally, supported by a bracket arrangement from below, the lower end of the bracket being carried by a stone corbel, usually ornamented, built into the wall. The horizontal piece, which is a species of tie beam, but cut off so as not to extend across the space spanned by the roof, carries the vertical queen post of the roof at its outer end, and the rafters and pole-plates butt against the surface of the other end. Syn. Fr. *Faux tirant*, false tie beam—pron. foh tee-rang; also *Entrait retroussé* (*retrousser* [ray-trooss-eh], to turn or cock up; the phrase *nez [nose] retroussé* is familiar to most)—pron. ahn-tray ray-trooss-say. This term applies to the bracket supporting the horizontal beam, which is generally curved in outline. Syn. Ger. *falscher Bindebalken* (*falsch*, false)—literally "a false binding (or tie) beam"—pron. fahl-sherr binn-deh-ball-kenn.

Hammer-dressed, in Masonry. The term used to indicate that the surface of a stone has been worked on or finished square with a hammer, which is sharp pointed at its ends. Syn. Fr. *Equarri*—pron. eh-karr-ee (from *équaire*, to square)—pron. eh-kair.

Hammered Iron. This may be taken generally as a synonymous term for malleable or wrought iron in contradistinction to cast iron; but in work done for the carpenter, for example, as in straps, tie rods, etc., for beams and roofs, it means more specially that the parts, in place of being used just as they come from the iron rolling mills in certain sections, undergo certain extra work of heating, hammering, and shaping by the smith, in order to make them better fitted for the duty the pieces have to perform. Syn. Fr. *Fer martelé*—pron. fairr marr-teh-lay; Ger. *Hammer-eisen*.

Handbarrow, in Masonry, etc. This is often used as synonymous with wheel-

barrow; but while the latter indicates that it is moved by rolling or "wheeling" it along the ground, the term handbarrow means only that which is lifted and carried by the hands. In the form used by the mason it consists of a flat platform or boarded surface centrally placed between two sets of handles, one set at each end, and of width enough to be easily grasped by the hands of the workmen who walk between the handles, the stone or other load lying on the platform. Syn. Fr. *Bourriquet*—pron. boo-ree-kay, or *Brancard*—pron. brahn-karr, which gives a better idea of the contrivance, as this word means generally a litter; Ger. *Mauerhandkasten*—pron. mough-err-hant-kass-tenn. *Kasten* means a chest or coffer or box, which is more applicable to another form of handbarrow more frequently used by bricklayers' labourers, in which the central part, in place of being an open flat platform, is made like a box, in which the bricks, etc., are placed.

Handle. The part, generally made of wood, by which the iron and steel implements and tools of the carpenter and joiner are held and worked. Der. The word hand is Old English, identical in spelling with the modern form; and the meaning of our term is obvious, as a thing capable of being grasped by the hand. Syn. Fr. *Manette*—pron. man-net (from *main*—pron. maihn or meng), the *n* as an aspirate (see Dissertation), and this from the Latin word *manus*, the hand; Ger. *Handhabe*—pron. hant-hah-bay—literally "having it by the hand" (from *haben* [hah-benn], to have or hold or possess).

Handle or Hand-knob of a Door, in Joinery. The rounded part of hard and polished wood, metal, etc., forming part of the lock furniture of a door. With us it is simply termed the handle (which see). Syn. Fr. *Bouton à olive*, meaning that the knob or button (*bouton*) is in form or section the shape somewhat of an olive, the handles of doors being on the Continent very generally elliptical in shape—like an olive—rather than spherical, or like an oblate spheroid, as with us—pron. boo-tohn ah oh-leeve; Ger. *Thürknoopf*, the door-knob or button—pron. tuerr-knoopf.

Handrail. That part of a staircase which surmounts and is carried by the rails or balusters, and which is generally made of mahogany and polished, to slide easily through the hand by which it may be grasped or enclosed in going down or up a stair. The form or section of the handrail varies, but is generally more or less ornate in the curves which make up its surface. The art of handrailing is one of the most difficult departments of joiner's work, and many of its details involve geometrical problems of a high order. Syn. Fr. *Main*

courante—literally “a running or sliding hand” —pron. maihn koor-ahnt (from *courir* [koo-reer], to run); hence our word *courier*, who was literally a runner carrying messages or announcing arrivals; Ger. *Treppengeländer* (from *Geländer*, banisters or rails, and *Treppe*, a stair); also *Treppenhalter*—literally “a holder on to, or keeper on of, the stairs” (from *halten*, to hold or keep).

Handrailing is the collective or general term for handrails, as these may be of different forms in a staircase, one part being straight, the other curved or ramped (for which last term see *Ramp*). Handrailing is a term often used, moreover, to denote a special trade or department of artificer's work. A joiner who is clever at it, or who may have a special system of his own—for there are several systems of handrailing—goes into business as a handrailer, making this work his speciality. Syn. Fr. (for handrailing considered as a whole in relation to the staircase) *Rampe*, which means a balustrade or rail, a piece on a slope; also *Garde-corps*—literally “a body-guard or fence”—pron. garrd-kohr; also *Garde-fou*—literally “a guard for mad or incapable (often meaning tipsy) people; Ger. *Treppengeländer* (*Treppe*, a stair, and *Geländer*, a rail or baluster)—pron. trep-penn-gay-lend-err.

Handsaw, in *Tools*. The form of saw generally used by the workman singly, to distinguish it from a two-handed saw worked by two men, or from a machine saw. Syn. Fr. *Scie à main* or *poing*—that is, grasped by the hand or by the fist (*poing*, the fist)—pron. see ah maihn or pwahn.

Handscrew. As in the screw-clamp or vice fixed at the side towards the end of the bench at which a joiner works. The head of the screw, which is of wood, is furnished with a cylindrical part or a knob, through which a hole is bored for the reception of a handle provided at the ends with buttons to prevent it from dropping out of connection with the screw. The term, of course, is applicable to a wide variety of cases in which the screw is worked by hand, whether it be of wood or of metal. Syn. Fr. *Cruc à main* (*cruc*, a jack-screw—pron. creek ah maihn) or *Vis à main* (*vis*, a screw, the most generally used term)—pron. veeze ah maihn; Ger. *Handschraube* (*Schraube*, a screw)—pron. hahnd-shrow-beh.

Hanging Post, in *Carpentry*. A term sometimes employed to designate the member of a framing, such as a king-post, placed vertically, suspended from or fixed to the rafters. Syn. Fr. *Clef pendant*—literally “a hanging key”—pron. klay pahnd-dahn; Ger. *Dachstuhlssäule*—literally “a roof stool pillar”—pron. dach-shtool-zoy-leh.

Hanging Style, in *Joinery*. One of the

sideposts of a door-framing to which the door is hinged. Properly the term is used to denote that vertical side of the frame of the door itself to which the hinges are fixed, and which is at the side opposite to what is called the lock style. Syn. Fr. *Montant pour le gond coté d'une porte*, the mounting-piece for the door-hinge (*gond coté*, hinge-side, *porte*, door)—pron. mohn-tahn poor le gohnd coat-eh duhn port; Ger. *Thürangelfries* or *Thürscharnirfries* (*Scharnir* or *Charnier*, a hinge, and *Fries*, a frieze or board)—pron. tuerr-shar-neer-freeze.

Hang, To, a Door, in *Joinery*. To fix it to the doorpost by the hinges; these being screwed to the hanging style. The term is from the Old English *hangen*, to suspend from above.

Harling, in *Bricklaying* or *Masonry*. The terms employed in Scotland to indicate the process known in England as “rough-casting” (which for details see), by which the front or outside surfaces of house walls are covered with a mixture of mortar and small pebbles.

Hasp, in *Ironmongery*. Part of what is called door and gate furniture. It is a part used in the fastening of a door or gate in which a “padlock” is employed as the securing or locking appliance. The “hasp” is secured by a loose joint, admitting of easy adjustment and movement, to the style of the door or gate to be fastened, the other end being elongated and provided with a slot or narrow aperture. This slot passes over an open semicircularly-ended “eye” latch or catch, the ends of which are driven into the gatepost or door-framing in the wall, and when the locking hook of the padlock is passed through the loop of the “eye” it is locked, and the gate or door firmly secured. Syn. Fr. *Morillon*; also *Agrafe* or *Fermeir*, the latter derived from the verb *fermer* (fermay), to close, shut or lock—pron. morr-ahlyohn. This term (*morillon*) is too wide, as it means generally an iron flap; *fermeir* is the better one, as it means definitely a clasp—pron. ferr-mohahrr; *agrafe* (ah-grahf) also means a clasp. Syn. Ger. The French term has been, so to say, imported into Germany, as it is used there; other terms are, first, our own word nearly, *Haspe*—pron. hass-pay; second, *Spange*—pron. spann-geh, which means a clasp or bracelet; third, *Haken*—pron. hah-kenn—also a clasp or hook; and this is combined with another synonym for our term, *Schliesshaken*—pron. shleece-hah-kenn (from *schliessen* [shlee-senn], to lock, to close).

Hatch, in *Joinery*. A term sometimes used to indicate an opening in a floor, or the enclosing wall of a timber-shed, which is covered by a “trap-door”; it is also used as a synonym for the trap-door itself, and also to indicate the small sluice-door in

a flood gate, or a small sluice-board, as in irrigation works, itself. Syn. Fr. for this latter term *Vanne*—pron. vann; Ger. *Schleusen-thür*—literally “the door of the sluice”—pron. shloy-senn-tuerr.

Hatchet, in Tools. A small axe to be easily used with one hand. The head has generally at the end opposite to the cutting edge a hammer-faced part, so that it can be used as a combination tool either for hewing or cutting or for striking. Our word is derived from the French synonym—with which, as will be seen, it is nearly identical—*Hachette*, which is the diminutive of *Hache*—pron. hahsh (*Hachette*, a little axe—pron. hash-ett). When the hatchet has a hammer head the French synonym is *Marlin* or *Merlin*—pron. marr- or merr-lain; the hammer part itself is *Tille*—pron. teel. The German synonym for hatchet as a complete tool is *Handbeil*—pron. hahnd-bile (*Beil*, a hatchet, axe, or, literally, “a (one) hand axe,” as distinguished from an ordinary axe, which is generally, or may be used, with the two hands. Syn. for a hammer-headed hatchet, *Hammerbeil*; for the hammer head itself the same term is employed, or *Hammer vom Beil*. Another German synonym is *Handaxt*—literally “a hand-axe.”

Haunch of an Arch, in Masonry. That part situated between the crown or upper part of the arch (see Arch) and the part at which it springs from the piers, wall, or impost (which see). The haunch may be said popularly to be that part of the arch which is most swelled or bulged out, as the haunch of the body bulges or swells out between the last rib and the thigh. The term “flank” is sometimes used in place of haunch of an arch; a tangent line to it being oblique, a tangent line to the crown, vertex or upper part being horizontal, a tangent line to the springing or lower part of the arch being vertical. Der. Our term is from, and very nearly the same as, the French *hanche*—pron. hahnsh. The French synonym for haunch of an arch is *Segment inférieur d'un arc*, or *Mi-arc*—pron. mee-arrk—literally “the half point of an arch”—that is, between the crown and the springing; *mi* being a contraction of the word *demi* (half)—pron. deh-mee, or *moitié*, also half. This term *mi-arc* gives perhaps a better idea of what the haunch is than the first-named term. Another Fr. syn. is *Axille*—pron. ack-seel; this means an armpit. The better term is *Flanc d'un arc*—the flank or side of an arch—which our haunch is. Syn. Ger. *Bogenschenkel*—literally “the thigh of an arch”—(*Schenkel*—pron. shenn-kell); also *Spandrelle* (*spandrel-leh*), a term almost identical with our word spandril (which see).

Hawke, in Plastering. The appliance used by the plasterer to hold a supply of

plaster in one hand while he works it with the other. It consists of a flat piece of board provided with a handle fixed on the lower or under surface. The upper surface thus affords a species of table upon which the plaster is placed and on which small portions may be worked up with the tool. Syn. Fr. *Palette de plâtrier* (*palette*—literally our palet, a flat surface for spreading paint, etc., upon, and *plâtrier*, a plasterer)—pron. pah-lett deh plah-tree-ai; Ger. *Pflasterbrett*—i.e. the plaster board (*Brett*, a board)—pron. pflass-terr-brett; also *Mörtelbrett*—pron. moerr-tell-brett.

Head of any piece of work, in Construction, is the top or upper part. The word is from the Old English *heafð*, the head of a man. Syn. Fr. *la Tête*—pron. lah tate; Ger. *der Kopf*. The term “head” is applied in many departments of building construction; some of its applications are as follows. **Head of a Nail**—The part or end of a nail opposite to the point, and by which it is driven home; the form of the head varies, some nails being practically headless. Syn. Fr. *Tête d'un Clou* (*clou*, a nail)—pron. tate duhn kloo; Ger. *Nagelkopf*—pron. nah-gell-kopf (*Nagel*, a nail, *Kopf*, a head). **Head of a Hammer**—Syn. Fr. *Tête d'un Marteau*—pron. marr-toe; Ger. *Hammerkopf*. **Head Beam**—The upper or top beam in an assemblage or timber framing. Syn. Fr. *Tête d'une Poutre* (see Beam); Ger. *Balkenkopf*. **Head of a Window or Window Head**—This term with us is generally used to indicate the form of the upper part of the window void or opening in the wall, as “square headed,” “circular (that is arched) headed,” or “segmental headed” (see Arch). In other cases the term is applied to the upper part of the window-frame or window-sash, which closes against the frame. Syn. Fr. (as applied in the latter case) *Fermeture d'une Croisée* (casement or window)—pron. fair-meh-toor duhne croah-zay; Ger. *Fensterschluss* (*Schluss*, closing or shutting—pron. shlooss, *Fenster*, a window): for the form or decoration of a window head *Fensterüberdeckung*—literally “window upper or over covering.” **Head-stone or Topstone**: Syn. Fr. *Pierre d'assise* (the last layer or top stone laid)—pron. ass-eese; Ger. *Kopfstück* (*Stück*, a piece), the head piece or last stone laid, the “top stone.”

Headers, in Masonry. The stones which are placed with their greatest length across the breadth or thickness, or transversely to the length of the wall, are so called (see Stretchers). **Headers**, in Bricklaying, are the bricks the length of which is disposed in the above manner (see Bricks).

Header Course, in Bricklaying. When a course is formed of headers throughout it is so called; generally “string courses” (which see) are formed of header bricks alone, projecting some distance from the

general face of the wall. Syn. Fr. *Platbande d'un compartiment*—that is, dividing one compartment or height of the wall from another, as a string course does, as the wall containing the window openings of the lower from those of the upper story; also *Platbande d'un Assise*, a layer or "course"; Ger. *Kranzleiste*—literally "a garland or wreath ledge" (*Kranz*—pron. *krantz*, a garland, a wreath, a festoon, and *Leiste*, a band or ledge). The term, however, is the German one for "heading course."

Head Workman. Generally with us occupying the place of foreman or manager of a department, though under him may be head or good or the best workmen who have a certain amount of supervision of other less skilled or trusted workmen under him. Syn. Fr. *Chef des ouvriers*, chief of the workmen, or simply *chef*—pron. *sheff*; in the expression *chef d'œuvre*—that is, a masterpiece—the pronunciation is *shay doovr*; but in the synonym above *sheff days oov-ree-yai*.

Heap, as of rubbish or earth in excavating. A mass having no determinate form or bulk. Der. The word is Old English, same spelling as our modern form; it is by others presumed to be derived from the German *Haufen*, and this from *hoffan*, to heave or throw together. Syn. Fr. *Tas*—pron. *tah*; Ger. *Haufe*—pron. *how-fay* (hence *häufen*, to heap up, to accumulate—pron. *how-fennu*).

Hearth, in House Construction. The lower part of a fire-grate, on which the fuel rests. In the olden times, when there was no grate, and only the andirons by which the fuel, generally wood billets or brush wood, was prevented from spreading over the floor of the apartment, the fuel was burnt in hovels on the earth; hence the Old German word *Herde*, the modern *Erde*, or earth, was used to denote the fireplace, and hence also the Old English word *heorde*. In better-class houses a flat stone was placed on which to burn the fuel; thus the term *Hearthstone* came into use. Syn. Fr. *Pierre de cheminée*—pron. *pee-are deh shem-ee-nay* (see *Fireplace*); Ger. *Heerdstein* or *Heerdplatte*—pron. *hairrd-stine*, *hairrd-plah-teh*.

Hearting, in Masonry, of a wall. The packing of small stones well grouted in mortar placed in the centre to make up the solidity. This is not always obtained, especially where the mortar is poor and the packing stones more deserving the name of rubbish than that of stones—some walls thick enough are anything but solid. Syn. Fr. *Cœur de mur*; Ger. *das Innere der Mauer*.

Heart Wood, in Timber. The central, oldest, and hardest part of exogenous plants or trees, corresponding to the pith of an endogenous tree or plant. Der. The word heart is Old English *heorte*. Syn. Fr. *Bois cœur*—pron. *bwah koerr*; Ger. *Holzherz*—pron. *holts-hairts*.

Heel Post, in Farm Buildings. Part of the Travis (which see), or timber division which divides one stall in a stable from another. As the name indicates, it is the outer post furthest from the head of the stall at which the manger is placed, and is so called because it is situated near the part of the stall at or about which the hind-legs of the horse are when he is standing. Syn. Fr. *Pilier (ou colonne) postérieure d'une écurie (pilier, a pillar, colonne, a column or pillar, écurie, a stable—see Stable)*—pron. *peel-yea (oo colonn) poss-tair-ee-eur duhn eh-koor-ee*; Ger. *der Hinterpfeiler vom Stalle* or *der Pfeiler am Hinterende des Stalles*—pron. *dare hinn-terp-pee-lahr fom stall-eh*. Our word heel is derived from the Old English *hel*, the hind part of the foot.

Height, in Masonry, Carpentry, and Joinery. A term used to indicate the measurement of a vertical distance, as that between the floor and ceiling of a room, as "height of ceiling." When the measurement includes the whole part or structure, the term "height over all" is used. The term "height" is in some cases synonymous with "rise"—the "rise of an arch"—meaning the vertical height from line of springing to the underside, soffit, or intrados of arch (see *Arch*). "Pitch" is also used to indicate the vertical height of a roof-truss; so that height, rise, and pitch of a roof all mean the same thing. The term "pitch" is that generally employed in carpentry. It is sometimes used in the sense of elevation: Syn. Fr. *Hauteur* or *Élévation*—pron. *hc-tuhr* or *eh-lay-vah-see-yon*; Ger. *Höhe*—pron. *hoeh-eh*. Syn. Fr. for height or rise of an arch or a roof-truss, *Montée d'un arc (d'un comble)*—pron. *monn-tay duhn arrk (duhn coh-m-bel)*; Ger. *Bogenhöhe* or *Dachhöhe*. Der. Our word is taken from the Old English *heahdo*, and this from *heah*, high. Eng. pron. *hite*, not *hate*.

Helve, in Tools. Synonymous with handle (which see). It is, however, almost always confined to the hammer or hammer-helve, and generally in the case of large hammers, as sledges or the striking hammers of smiths. Syn. Fr. *Montée d'un marteau*—pron. *monn-tay duhn marr-toe*; Ger. *Helm*, helmet or cap.

Herring-bone Bond, in Masonry and Bricklaying. This is by some considered to be the most ancient of all varieties of bonds. It is generally taken when present in a structure as evidence that it must be very old in point of date. This conclusion it is unsafe to make, as it is found in buildings ranging over a period of centuries, dating from the time of the Romans down to that of our own day. The peculiarity of this bond (see *Bond*) is that the successive courses are laid obliquely, not horizontally. The angle varies, but this may be taken at about 40°. The disposition of the course

varies, the angle alternating in each course—one course of oblique stones lying to the right, the next to the left. In some classes of this work a layer or course of horizontally disposed or bedded stones is placed between the two oblique courses. The name herring-bone is given to this style of bond, from the close or fancied resemblance which any two contiguous courses have to the backbone of a herring. The resemblance is all the more complete if a horizontal course of these stones be placed between the two oblique courses. In this kind of bond the stones used are generally thin in proportion to the length, and when the whole are laid in good mortar—and in old work bad is never found—it makes a very strong wall. Syn. Fr. *Arête du poisson* (*arête*, bone, *poisson*, a fish)—pron. ah-rate dhu pwah-sonn; also *Arête en épi* (*épi*, a thorn)—pron. eh-pee; so called from its resemblance to a thorn-stalk with spikes or prickles radiating from it; Ger. *Fischgrätenbau* (*Fisch*, a fish, *Gräte*, a bone [*Fischgräte* is a fish-bone], and *Bau*, building work)—pron. fish-gray-tenn-bough.

Hew, in *Masonry*. To cut or dress the faces of building stones. This work is done with the hammer (pointed) or the chisel, according as the stone is hammer-dressed or smooth cut. Generally the term is derived from the Old English *hewuh* or *hih*, to cut or cleave, for its French synonym is *Tailler*—pron. tah-yea; also *Couper* (koo-pay), to cut; Ger. *hauen*—pron. how-enn; also *hacken*—hak-ken (our word "hack" comes from this). Specially the term *hew*, as to "hew with the hammer" (hammer-dressed), has for its French synonym *Délarder une pierre*. The term *délarder* is rather too specific, for it literally means "to chamfer" (which see)—pron. day-larr-day. The more precise synonym would be *Tailler une pierre avec le picot* (see Pick-hammer)—pron. tah-yea oon pee-air ah-vek lay pee-koh; Ger. *einen Stein mit dem Spitzhammer behauen*; also more briefly *Stein spitzen* [*Spitz* [speetz] is a point—for example, *Spitzbergen*, the pointed mountain)—pron. ine-en stine mit dame speetz-ham-merr bay-how-enn, or stine speetz-enn. To "hew stones with the chisel" the French synonym is the same as above, but having for *picot* the word *échope*, which is a hewing-chisel—pron. eh-shop. To "hew the bed of a stone" is in French *Faire le lit d'une pierre*—literally "to make the bed or lying face of a stone"—pron. fair leh lee duhn pee-air; Ger. *Lagerstein behauen*.

Hewer. Syn. Fr. *Tailleur de pierres*—pron. tayll-yure (*tailleur* without the affix is a tailor, meaning a cutter-out of garments); Ger. *Steinhauer*.

Hewing-stone, in *Masonry* generally. Syn. Fr. *Coupe des pierres*—pron. kooop day pee-air; Ger. *Steine behauen*—pron.

sty-neh beh-how-enn, some make the equivalent simply *Schnittstein* (from *Schnitt*, a cut)—pron. shnit-stine, but this term is never used in this sense.

Hexastyle, in *Architectural Design*. The portico or front elevation of a building which has six pillars or columns in front. Der. From the Latin *hexastylus*, *hex* being from the Greek and is the prefix for six, and *stylos*, a pillar or column. Syn. Fr. *Hexastyle*—pron. hayx-ah-steel; Ger. *sechssäulig*, six-pillared (from *sechs*, six, and *Säule*, a pillar or column)—pron. zex-zoyl-ich.

Hinges, in *Ironmongery*, and as used in *Joinery and Cabinet Making*. These are of great variety of form and construction, too numerous to be named and described here. The simpler and cheaper forms, as for outer doors, gates, etc., are open to view; the better-class forms are all concealed. The simplest form of door-hinge is made of two leaves or separate parts, rectangular in shape, longer than broad, and provided with two countersunk (see Countersunk) holes in each, through which the screw-nails employed to secure them to the timber are passed and screwed up or home; the surface of head of screw being thus flush with face of leaf of hinge. Each leaf has one of its sides turned up or formed into a species of tube, through which the pin on which the hinge turns is passed, securing the two leaves together. On one leaf a recess is cut out, and on the other a projecting part is made of the same swell or curve of tube as the side of the other leaf. This projection is made also with a hole through end to end, and when passed into the recess in the other leaf, the two are kept together by, and turn easily on, the pin as a centre. One leaf is screwed to the outside edge of the hanging style (which see) of door, the other to the inside of door-framing or casement. Der. The word is taken from the Danish *hoenge*, to hang. Syn. Fr. *Charnier*—pron. sharrnyai; Ger. *Thürangel* (*Angel*, a hinge, or an angle or corner, also a hook, as a fish-hook—probably derived from the Danish *hengzel*, a hook. The German phrase is literally a door-hinge or hook.

Hip Knob, in *Architectural Design*. A part placed between the meeting angles or apex of a gable arched roof (see Gable). The part against the sides of which the rafters of the roof butt (see Butt) is made square and rectangular in section, with flat butting faces; the part of this below the apex is finished with a "drop" ornament, the upper part being terminated with a pointed or floriated finial (see Gablet) more or less ornate. The term hip knob thus defined is not correct, for a gable-ended is not a hipped roof, the two forms being essentially distinct, as explained under their respective heads. The end of a hipped roof

slopes away from the wall; a gable is the vertical continuation of the wall, but generally tapering to a point. The term is, however, now established, and it would, it is to be confessed, be difficult to get another to substitute for it; for a hip knob is not to be confounded with the ordinary finial or a gablet. Syn. Fr. *Poinçon décoré*—literally “a decorated needle or pointed tool”—pron. pwohn-song day-korr-aye, or *Epi de faite*—literally “a made thorn or spike,” alluding to the spiked or pointed termination—pron. ep-ee day fate; Ger. *Eckforster*—pron. eck-for-ster.

Hip Rafter, in *Carpentry*. The angular rafter reaching from the corner of the building in a hip roof to the ridge pole; or in a pavilion roof meeting with and joining the other hip rafters in the centre. This is sometimes called a “jack rafter” (which see). Syn. Fr. *Arête d'un comble*, or simply *Arétier*—pron. ah-rate-ee-ay, or *Chevron d'une croupe* (see Hip Roof)—pron. shuve-rong duhn kroop.

Hip Roof, in *Carpentry*. A roof-truss; also a roof the ends of which are inclined like the sides and at the same angle. In this the gable (which see) is of necessity absent. Der. The word hip is taken from the Old English *hipe* or *hype*, denoting the lateral or side-bones bounding the pelvis; hence the name hip-roof, the hipped parts being at the side. Syn. Fr. *Demi ferme de croupe*—that is, the half-truss of a roof; the word *croupe* (pron. kroop) means the same as our word, so closely approaching it, croup—pron. same as the French, not croup; also the summit or ridge of a place, or simply at times a hip roof; Ger. *Walmdach* (*Walm*, a slope)—pron. vahlm-dach. When a hipped roof has its sloping sides and ends meeting in a point central to the covered space, it has for its French synonym *Comble en pavillon*—literally “a pavilion roof”—(which see)—pron. pah-veal-yong; Ger. *Zelt-dach* (*Zelt*, a tent or a pavilion)—pron. tsel-t.

Hip Tile (ridge), in *Slater's Work*. The tile used to cover the ridges of a hipped roof. The sides or leaves are made oblique to each other, the angle corresponding, or nearly so, to the angle of sides of roof, so that the tiles when placed embrace the two sides or faces of this like a saddle; hence some call them saddle tiles. The apex of the tile is in plain tiles rounded off with what is called a plain “roll” or cylindrical surface, and in better-class work is ornamented with finials more or less ornate. Syn. Fr. *Tuile* (pron. tweel) *de croupe* or *Tuile arétière*—pron. tweel arr-ate-yair.

“H” Iron, in *Iron Framework*. Sometimes called “double” iron; the two pieces of T iron being placed so that the *t* lies flat, thus — , the two tails being riveted together. Syn. Fr. *Fer en “H”*—pron. fair abn absh

—that is, iron in the form of the letter H; Ger. “H” *Eisen*—pron. hah-eisen.

Hoarding, in *Building*. Timber boards enclosing a space in which building is going on; or, as in the case of street buildings, a row of timber boarding to screen off the work from the pavement or street. If not a corruption of boarding, the term is probably derived from the Old English word *heard*, to store up (our hoard), and anything hoarded is enclosed or concealed, which hoarding or boarding does. The nearest French synonym is *Clôture* (enclosure) *pour les bâtiments* (buildings)—pron. kloh-teure poor lay bah-tee-mahns; Ger. *Einhägung von Bauen* (from *hügen*, to fence off or enclose)—pron. ine-hay-goong fon bough-enn.

Hob, in *Ironmongery*. That part at the side of a fire grate which has a flat level surface, so that cooking utensils, etc., may be placed on it for their contents to be warmed or to simmer; hence the French and German synonyms as below. The hob is altogether absent in sitting or entertaining-room grates, and is only made an integral part of kitchen grates—sometimes, where the claims of comfort or of sick-room necessities are considered (which they seldom are by the modern fire grate makers), of bedroom grates. Der. Our word is from the Old English *habb* (from *habben*, to hold, or place a thing upon). Syn. Fr. *Plaque de pot au feu* or *bouilloire*. The *pot au feu* is an established institution in all French kitchens—at least, of the classes with whom economy is an object. It is a tall earthenware vessel, or jar as we should call it, provided with a lid. This is kept constantly standing on the hob or on the warming-plate of the cooking-stove, if that be used, and all (clean) scraps of meat, fat, bones, etc., are put into this from time to time, which, constantly simmering, form a rich stew or rather gravy, which to our cooks is known by the name of “stock,” from which rich gravies or soups are made. The term *bouilloire* is almost identical with the *pot au feu*, although it means simply a boiler—pron. plakh deh pot o feugh, or plakh deh boohl-whar. Syn. Ger. *Kesselplatte*—literally “the kettle-plate”—pron. kess-el-plat-teh.

Hod, in *Bricklaying*. The implement or appliance used by the bricklayer's labourer to carry the bricks or mortar in. It is a “V”-shaped box, provided with a long cylindrical handle fixed to the central part of apex or ridge of the V-box; this edge resting on the shoulder of the labourer, a pad being placed between this and the sharp edge of the “hod.” Der. Some take it from the Old English *odd*—that is, a thing which has not an even or flat surface; others from the Old French *hotte*, which signified a dorsal—that is, a thing carried on the back. The

modern French synonym, oddly enough, is *oiseau*—that is, a bird—pron. wah-zoh; otherwise it is termed *palette*—pron. pah-lett. Our word pallet comes from this; also *auge*, which signifies a trough—pron. ohj. If the hod is used to carry mortar in for the use of masons, it is termed *Auget à mortière*—pron. oh-jay ah morr-ty-airr. Syn. Ger. *Ziegelsteinkübel*—literally “a brick tub” (*Kübel*, a tub—pron. kue-bell). If the hod is to carry mortar, it is *Lehmkübel*.

Hoist, in *House Appliances*. Sometimes termed an elevator; a contrivance used for lifting or taking up cooked food, etc., from the kitchen to a closet or passage adjoining the dining-room; also much used in restaurants to convey the food of the guests from the cooking-place and stores below. It is a corruption of our word *hoise*, to raise or lift up. *Der*. It is taken from the French *hausser*, to raise, or the German *hissen*. Syn. Fr. *Élévateur*, an elevator, lifter, or hoister—pron. eh-leh-vah-teur; Ger. *Elevator*—pron. eh-eh-vah-tor.

Hoist, in *Building*. Sometimes called a travelling crane, or more simply a “traveller” (see Crane and Travelling Crane). The crane or the hoisting apparatus is placed in a frame, which moves to and fro along beams (see Gantry), and the crane or crab or hoisting mechanism has a traverse or cross movement on its frame. Syn. Fr. *Monte-charge*—pron. mohnt sharg; Ger. *Aufhisser*, hoister or lifter out of—pron. owf-hiss-err.

Hold, in *Construction*. To hold fast, to grip. It is a term often used, meaning that the connection between one piece and another is firm or secure, and can be trusted to for not giving way. *Der*. The word is taken from the Old English *heold*, held (from *healdan*, to hold). Syn. Fr. *Tenir*, to hold—pron. ten-er; Ger. *Greifen*, to grasp, seize hold of—pron. grife-enn. To hold fast is *Mordre*, to bite, to catch fast hold of—pron. morr-derr; Ger. *Angreifen*, to seize or grasp on—pron. an-grife-en.

Holdfast, in *Carpentry and Joinery*. This may be called a large iron nail driven into timber, where a secure part to hang on by or fix is required. It is flat on the face, but tapers generally from the broad end to the driving point. The broad end is flattened out much thinner than the body, and is bent inwards and over the upper edge in a kind of semicircular loop. This joins the broad end, so as to leave a shoulder by which the holdfast can be driven home without striking the loop, which is not calculated to bear heavy blows. Syn. Fr. *Tirant* (from *tirer*, to draw)—meaning a drawer together or holder; Ger. *Klammer*—pron. klam-merr (from *klammern*, to clasp); also *Haken*, a hook—pron. hah-ken.

Hole, in *Construction*. An aperture made

in a body, as in a wall or a piece of timber by which a passage is made from one surface to the other. A common expression is that when a hole is made it “shows daylight through.” This is shown in the French and German synonyms in one form: namely, Fr. *la Lumière*—pron. lah luh-me-yairr, the light, also a hole or opening; Ger. *Lichtsechloch*—literally “light (day) see or seeing hole” (from *sehen*, to see, and *Loch*, a hole); or simply *Lichtloch*, light hole—pron. leecht-logh. Another expression, in connection with a hole in construction, is that it lets light and *air* through; this is shown, so far as the latter is concerned, in another German synonym, *Luftloch*, airhole (*Luft* being air, the atmosphere, a breeze, etc.)—pron. lohft-logh. This is more accurate than the Old English word *hol*, from which our term comes, *hol* meaning a cavity. Now, a cavity is in one sense a hole made in the surface of a thing; but it is not a hole in the sense of passing through the body, which is the constructive sense of the term we give. Generally the French synonym for hole is *Trou*—pron. troo; Ger. *Loch* (for pronunciation see Dissertation on the sound of combination *ch*. The act of making a hole is in French *Refouillement* (from *fouiller*, to dig out, to excavate—pron. full-yea); *refouillement* is digging again and again till the hole is completed or excavation formed—pron. ray-foo-ill-mahn; Ger. *Auslochung*—literally “hollowing out.”

Hollow, in *Architecture*. Another term for the moulding known as the Cavetto (which see).

Hollow, in *Construction*. *Der*. The term is taken from the same Old English word *hol*, a cavity, as hole is; and it more accurately defines what a hollow than it indicates what a hole is; for a hollow is a depressed or sunk part in an object—not necessarily showing light and letting air through, as a constructive hole does (see last term above, also Cavity). Syn. Fr. for to hollow, or the act of hollowing, *Creuser*—pron. kreu-zay, to scoop or dig out; Ger. *höhlen*—that is, to make a hole or cavern, which does not give the precise conception of a constructive hollow or cavity. For to hollow out in the sense of stamping, as a sheet of iron, or to make projecting knobs on hoop iron (which see), to give it a better hold, the French synonym is *Faire une cavité*, to make a cavity—pron. fair uehn kah-vee-tay. Another French term is *Faire une plumée*. This has a somewhat curious derivation: *plumée*—pron. plloom-eh, is a dip of ink and small cavities may be said to contain as much liquid as this. Another French term for this stamping out cavities in metal is *Estamper une cuiller*, to stamp out a spoon (*cuiller* pron. kweel-yea). Syn. Ger. *Schlag machen*—that

is, making blows, which, though true of stamping, which cannot be done without blows, gives no idea of what purpose they are to serve. The more precise term would be *eine Vertiefung machen*, which is the nearest approach to our hollow or cavity—meaning to make a deepening (from *vertiefen*, to deepen or make deeper)—pron. ferr-tee-föong. To hollow out the surface of a stone, the Fr. syn. is *Creuser une pierre*; Ger. *Stein aushöhlen*. A hollow, as a groove or recess, is in French *Creux*—pron. kreuh; Ger. *Höhlung*.

Hollow Brick, in Bricksetting. A brick with void spaces or having holes, circular or rectangular in section, running through from end to end longitudinally, or from side to side transversely. The object is not merely to lighten the weight of the bricks, but to serve in some measure the same purpose as the hollow wall. Hollow bricks are also used as air bricks and foundation-course or damp-proof bricks (see Bricks).

Hollow Groove, in Carpentry or Joinery. Syn. Fr. *Gorge*, the throat—pron. gorj'h; also *Cannelure*—literally “a channel”—pron. kann-el-ühr; also *échancrure*—pron. eh-shahn-kruuhr—literally “a slope” (from *échancrer* [eh-shahn-kray], to slope); Ger. *Kehle*—pron. kay-leh, the throat, or a channel; also *Kehlleiste* (*Leiste*, a band), meaning a long channel.

Hollow Wall, in Masonry and Brick-laying. A wall with a central void space. The object of this is to keep the inner or house side of the wall dry or free from damp; any rain or damp which passes through the outer part of the hollow wall being arrested by the void space. (See Cavity Wall.)

Holly, in Timber, and in House and Garden Decoration. An evergreen bush—which, however, under careful cultivation, assumes the form of a tree of considerable height and with widely spreading, yet compactly formed, branches. It is much admired for the beautiful green glossiness of its pointed and prickly leaves, and the red berries which adorn it in the winter months. It is largely cultivated for the house decoration at “dear delightful Christmas.” The botanical name is *ilex aquifolium*. Der. The word “holly” is taken from the Old English *holegn*, and this from *halig*, holy or sacred, referring to its use at the sacred season above alluded to. The custom, then, of decorating our houses at this period with evergreen holly is thus seen to be a very old one. Syn. Fr. *Houx*—pron. hoo; holly wood is *Bois de houx*—pron. bwah deh hoo; Ger. *Walldistelholz* (from *Wald*, a forest, *Distel*, a thistle, *Holz*, wood, referring to the prickly character of its leaves, like those of a thistle)—pron. valldis-tell-holhts.

Home, Drive, in Construction. Meaning

that the piece, as a wedge or a nail or hold-fast, is to be driven in with blows of the hammer or mallet till it has penetrated the body into which it is driven as far the workman deems necessary in order to give it the firmest or most secure hold (see Hold). Syn. Fr. *Enfoncer*, to drive or force in, as to drive home a nail, is *Enfoncer un clou*—pron. ahn-fonn-say oon kloos; Ger. *Nagel einschlagen* (*Schlag*, a blow or stroke)—pron. nah-gell ine-shlah-gen. Der. Our word “home” is taken from the Old English *ham*, a home, which latter is nearly the Lowland Scotch for one’s house: “when the kye (Ger. *Kieh*, cattle) come hame”—that is, when they are brought from the pastures to be housed. Our word “drive” is taken from the Old English *drif*, force or compulsion (from *drifan*, to force).

Home Grown Timber, in the Timber Trade. Another term for round timber (which see) that is sold in the tree form of boles and branches. The term indicates that the dealer does not as a rule sell foreign grown timber, but deals in timber trees grown in our own country, such as oak, larch, fir, sycamore, etc. Syn. Fr. *Bois du pays*—that is, wood of the country—pron. bwah duh pay-ee; Ger. *einheimisches Holz* (from *Heim*, home)—pron. ine hime-ee-shess holtz.

Hone. The synonym for whetstone (or setstone), which is used by carpenters and joiners for “setting” their chisels, plane-irons, etc., or putting a fine edge on them, the surface of the stone being lubricated with fine oil. The word “hone,” however, is more generally used to indicate the form of whetstone used to put a fine edge on smaller tools, such as knives, razors, etc. The whetstones for long most esteemed were known as “Turkey,” of a fine rich creamy colour, remarkably smooth in texture, and yet giving a good “bite” to the tool edge. The stone known and chiefly used now as “Arkansas” is a product of American quarries, chiefly in the State of this name; hence the designation. This stone is remarkable for the bite it gives the edge, and the rapidity with which it “sharpens” it. The colour of Arkansas stone is a bluish-white or a whitey-blue. Syn. Fr. *Pierre à aiguiser* (to sharpen or put an edge on)—pron. pee-air ah eh-gweeze-eh; Ger. *Wetzstein* (from *wetzen*, to sharpen)—pron. vettzshine.

Hood, in Architecture. A term used to denote some species of covering, as—

Hood Moulding. The moulding which forms the upper member of a Gothic door or window dressing, and which projects from the wall so as to cover the members below and thus protect them from wet or drip; hence the other terms given to the same object—drip moulding, weather mould-

ing. It is sometimes also termed a "label." *Der.* The word hood is from the Old English *hod*, a hut or covering. Syn. Fr. *Chambrante à pignon* (literally "a gable casing")—pron. shahm-brahnl ah peen-yon; Ger. *Thür* (or *Fenster*) *verdachung*—literally "a door (or window) roofing"—pron. thuerr ferrdach-oong.

Hook, in Ironmongery. A piece of metal bent or crooked at one end, the curve more or less approaching to that of part of a circle; sometimes also shaped like an ogee (which see) or with an elliptical curve. The part of the hook opposite to the bend or crook is called the tail, and this may be simply pointed to be driven like a nail. In the best work the tail end is screwed. *Der.* Our word is from the Old English *hoc*, a thing bent or crooked (*hoicht*, crooked). The word crook is supposed to be taken from the Welsh *croca*, but it may be from *croc*—pron. kroh, which is the French synonym for hook. *Crochet* also means a hook—pron. krow-shay: this, however, means a little hook. Syn. Ger. *Haken*, a hook or clasp—pron. hah-kenn; also *Haspen* (our word hasp comes from this). To hook an object is a French *Attacher* (to attach) *avec un croc ou crochet*—pron. ah-tash-eh ah-vek oohn krok oo krosh-eh; Ger. *Anhaken* or *anhaspen* (see above)—pron. an-hah-ken, an-hass-pen.

Hook Ring, in Door or Window Furniture. A ring or eye screwed—or the tail may be pointed like a nail only—into the framing in the case of a door, to receive the bent part of the "hook" which is jointed to the door itself. In this case the tail end of the hook is furnished with an eye by which it can be screwed on to the door, etc. Syn. Fr. *Croc à anneau*—pron. krok ah an-noh; Ger. *Hakenring*—pron. hah-kenn-ring.

Hoop-iron, in Bricklaying. Used largely now as a substitute for bond timber—that is, long pieces of wood, generally of brick section, so as to fit or bond in with the bricks, built in the walls to keep or bind or bond the bricks together. But as this bond timber decayed rapidly, leading to unequal settlement—a worse disease than that the bond timber was designed to cure—a substitute was looked for and found in that form of thin wrought-iron plate rolled as narrow ribbands. When this is well painted with tar it lasts a long time, and has a much greater tensile strength than timber of infinitely larger cross-section. By indenting (see *Hole, Hollow*) the strips with a rounded-head punch, a series of projections are made which give to the mortar a good key or hold of the iron. Better still if the small hole be punched through, leaving ragged or rough projections on the side opposite to the punched side. In a patent hoop-iron for bonding, known as Tyermann's, the edges are cut into diagonally, at intervals of a short

distance, and these cut parts are bent up in alternate directions so that each surface has its edges provided with a series of what are practically hooks or gripping points. Syn. Fr. *Fer à ruban*—that is, ribband iron—pron. ferr ah rue-bahn; Ger. *Reifeisen* (from *Reif*, a circle or hoop)—pron. rife-ize-enn. To hoop is in French *Cercler*—pron. sare-clay; Ger. *Umreifen*—pron. oohm-rife-enn.

Hoop (Metal), in Construction. A ring or hoop of iron made to encircle a piece of timber, as the head of a timber pile, to prevent the piece splitting open under the blows of the "monkey," a falling weight which "drives home" (which see) the pile. *Der.* The word is from the Old English *hop*, a ring. Syn. Fr. *Cercle*—pron. sair-kel; also *Anneau*—pron. an-no; also *Cerceau*—pron. sair-soh; Ger. *Rundband*—pron. ruhnd-bahnd; also *Schiene*—pron. shee-nay, an iron band (from *schienen* [shee-nen], to splint or tie round).

Hornblende. One of the constituents of granite. Syn. Fr. *Granit amphibolique*—pron. grahn-ee-tahm-foll-eek; Ger. *Hornblende-granit*—pron. horn-blen-deh-grah-neet.

Horse, in the Timber Trade. The framework made up of angularly disposed timbers, or with timbers having spaces between of varying widths. Into these spaces the sawn-up planks or boards are placed in sloping or angular directions, so that the upper ends of one set cross the ends of another set, projecting beyond the sides of the rack or horse. When so placed they are exposed to drying winds and sunlight, and thus get "weathered" or "seasoned." But as they are also exposed to rain and damp, this seasoning is anything but complete. Another name is trestle or timber trestle. The French synonym for our word is *Triteau*, a trestle (see *Trestle*)—pron. tree-toh; Ger. *Gestell*, a trestle, a holding frame—pron. geh-stell; also *Bock*, a trestle. The special German synonym for a timber horse, rack, or trestle is *Sägebock*—literally "saw (*Säge*, a saw), wood trestle"—pron. zay-geh-bokk.

Horse-shoe Arch, in Architecture. A distinguishing feature of Arabic, Moorsque, or Moorish architecture. In every other form of arch the ends spring from the impost or pier for some distance in a vertical or partly vertical direction, the inside line or intrados being coincident or in a line with the inner lines of piers or imposts. In the horse-shoe or Moorish arch, the springing ends form part of a circle—blending with the upper line of intrados, which is semicircular—bending, as it were, towards the centre line of arch, so that the lines of imposts or piers are nearer the centre line than on other forms of arches. It is not easy to explain in words what a diagram can alone do; but this will suffice to give

the general reader some conception of the form, which will begreatly aided by keeping in mind the form of the inner curve of a horse-shoe, which gives the dominant idea in our own term as stated, and the French synonym, *Arc à cheval*—pron. ark ah sheh-vahl. The German synonym is dominated by the name of the nation who first introduced this arch—the Moors—and of which the finest specimens are to be met with in the Alhambra, that beautiful structure which they built when they held Spain. Syn. Ger. *der mohrische Bogen* (literally "Moorish arch")—pron. more-ish-eh boh-genn.

Hothouse, in Garden Architecture. A term applied to a glazed structure either on the "lean-to" or the "span roof" (see Lean-to, Span Roof) principle of framing, and which is kept artificially heated to force on flowering and other plants. Syn. Fr. *Serre-chaude*, a hot greenhouse, a close or tight structure (from *serre*, to 'close or tighten')—pron. sairr-shode; Ger. *Treib- or Warmhaus* (from *treiben* [tribe-enn], to force or drive)—pron. tribe, varm-house. If for forcing fruits only, the French synonym is *Forcerie*—pron. forser-r-ree; Ger. *Frucht* (fruit—pron. fruecht) *warm* or *treibhaus*.

House, in Domestic Architecture. The building in which human beings are sheltered or goods, etc., protected. Der. The term is from the Old English *hus*, and this from *huten*, to cover (see Hut). Syn. Fr. *Maison*—pron. may-zonn; Ger. *Haus*—pron. howss.

Housing (to House), in Carpentry. The making of a place, as a scarf joint, to receive the end of another member of a framing, as the rafter joining the tie beam. When the joist is completed the rafter is said to be "housed," and "to house" it is to make the joist; housing is the joist completed. The term applies, of course, to a wide range of work; joists of floors, for example, are said to be "housed" when built into the walls. Syn. Fr. *Mettre en place*, to put in place—pron. mett-err ahn plahce; Ger. *Einheimsen* (*Heim*, home), to take or place home—pron. ine-hime-senn.

House Carpenter.—The artificer who does the timber framing work of domestic and other houses. (See Carpenter—Carpentry.)

House Painter. The artificer who does the internal and external painting work. Syn. Fr. *Peintureur*—pron. pehn-tuhr-eur or -nehr; also *Peintre des bâtiments*—that is, a building painter—pron. pehn-terr day bah-tee-mahn; Ger. *Putzenmaurer*—literally "a builder-dresser or decorator" (from *putzen*, to dress)—pron. put-senn-mow-rerr; also simply *Weisser*—literally "a whitener or whitewasher," as if the ability to white-wash a building embraced all that was essential in painting.

Hovel (see Hut). A term generally

applied to some temporary erection, almost always constructed of wood, sometimes of earth, made to shelter workmen in doing work in rural districts, as in railway work, farm work, etc. There are but too many houses of the poor, so called, to which the name of hovel would be more applicable. It is hard to say when this social stain on our national character will be removed (see Sanitary Construction). Der. The word is from the Old English *hofel* (from *hof*, a house), meaning a little house. (See Cabin).

Hurdle. A species of portable fence, the fence being made in short sections and fixed in the earth where required. The cheapest form of hurdle is that made of branches of trees filled in with small twigs and brushwood. Der. The word in this sense is taken from the Old English *hyrdhil*. Improved hurdles are made like gates, regularly framed, or of wrought iron. Syn. Fr. *Claie*—pron. klai; Ger. *Hürde*—pron. heurr-deh.

Hut, in Building. A small house containing generally but one room. The term is often used as synonymous with hovel (which see), although as a rule a hut is considered to be more carefully constructed than a hovel, even if its accommodation as a living place be no greater. Der. The term may be a corruption of the Old English *hus*, although it is more probable that we take it direct from the German *Hütte* or from the French, which gives precisely the same word. The pronunciation of the latter is huet; of the German huet-tay.

Hutch, in Ecclesiastical Architecture. **Hutch or Hatch, in Joinery.** In the first-named the name was given to the receptacle or movable chest or fixed cup-board in which the utensils, etc., of public worship were kept. In joinery the term—more frequently, however, spelt as hatch—is used for a species of trap-door used in barns, caravans, etc. The door is generally made in two halves, divided horizontally, so that when the upper half is let down the lower half still keeps the doorway closed, while light and air are admitted through the upper opening. The term hutch is most generally used to indicate the species of small timber house or box in which rabbits are kept. Der. Our term hutch is taken from the Old English *hucche*.

Hydrant, in Water Supply. An appliance placed in streets, courts, etc., to facilitate the supply of water without unnecessary waste. It consists of a tall iron case, plain or ornamental in design, which encloses the valve or tap apparatus. This is worked by a spring knob or by other mechanical arrangement from the outside. Hydrants are also used for fire extinguishing purposes. Der. The term is from the Latin *hydra*, and this from the Greek *hudos*, both signifying

water. Syn. Fr. (for a fire hydrant) *Robinet à incendie*—pron. roh-bee-nay ah ahn-sahn-dee; Ger. *Feuerhahn* (*Hahn*, a cock or tap)—literally “a fire-cock”—pron. foy-err-hahn.

Hydraulic Cement, in Building. A cement which hardens under water. The Romans used a mineral substance called puzzalano, and the use of this has descended to our own day. The mineral called tufa, a soft friable rock, but which indurates or hardens on exposure to the air, was largely used by the ancient Romans as a hydraulic cement. Rome may be said to stand on the tufa; and those mysterious places, so full of archæological interest—the catacombs of Rome—are by some authorities believed to have been formed by the inhabitants of ancient Rome for the purpose of obtaining a supply of hydraulic cement, which they not only used largely (almost exclusively) in constructing their splendid buildings or aqueducts, but sent to all parts of their vast dominions for constructive purposes. The mineral called trass (a corruption of terrass), found very largely in some of the districts on the Rhine, markedly in that of the Lohr, is quarried extensively and sent to various parts, specially to Holland, where it is largely used as a hydraulic cement. Of late a species of cement known as Portland is most extensively used in hydraulic work and in forming a concrete, the materials of which are mixed with water and “set” with remarkable hardness. Syn. Fr. *Ciment de*

puzzolane—pron. see-mahn deh pueh-zoh-lahn; also *Ciment d'hydraulique*—pron. see-mahn dee-droll-eek; Ger. *Hydraulischer Kitt* (*Kitt*, cement)—pron. hee-drow-lish-err kitt.

Hyperthyrium, in Architectural Design. Der. From the Latin *hypethrus*, used to indicate the lintel of a door and the frieze or ornaments above it. It is a learned synonym for hood mouldings (which see). Syn. Fr. *Hypèthre*—pron. hee-pay-ter; also *Hyperthyrium dessus de porte*—pron. hee-perr-tee-ee-on deh-sueh deh porrt; Ger. *Fries über der Thür* (“frieze over the door”)—pron. freess ueh-berr derr tuerr; also *Thürbekrönung*—literally “the door crowning”—pron. tuer-beh-kroeh-noong.

Hypocaust, in Building. The name given by the Romans to the arrangement of stove by which the water of their baths was heated. Syn. Fr. *Hypocauste*—pron. heap-oh-kohst; Ger. *Hypokaustum*—pron. hip-oh-kows-toom; also *Heizung unter dem Fussboden* (literally “heating under the floor,” this referring to the principle upon which the hypocaust was arranged by the Romans)—pron. hite-soong oon-terr-dame foos-boh-denn.

Hypotrachelium, in Architectural Design. A learned synonym for the neck or the frieze of the capital of an order, or for the neck moulding. Syn. Fr. *Gorgerin* (*gorge*, the throat)—pron. gorje-air-aihn; also *Colarin*—pron. kohl-arr-ihn; Ger. *Hypotrachelion*—pron. hip-oh-trah-kell-ee-on.

I.

Impost, in Masonry and Bricklaying. The upper part of a pier or column, or upper part of a wall, from which an arch springs. The distance between the sides of the impost with which the inner curve or intrados of the arch coincides is equal to the “span” of the arch. The “rise” of the arch is measured from the central point of a horizontal line joining the upper faces of the two imposts. Der. From the Latin *ponere*, to place, an impost being a body or surface upon which something (the arch stone or *vousoir*) is placed. Syn. Fr. *Imposte*; also *Coussinet*—pron. koo-see-nay; Ger. *der Impost*—pron. imm-posst.

Inch, in Measurements. A lineal measure or measurement of length equal to one thirty-sixth part of the “standard or imperial yard,” or one-twelfth of the foot. In “foot rules” it is generally divided into eight equal parts, technically termed eighths; but a further division in many rules is made into sixteen parts, technically called “sixteenths” of an inch. Der. From the Old English *ince*, and this probably from the Latin *uncia*, which means the twelfth part. Syn. Fr. *Pouce*—pron. pooche, which means

literally “the thumb,” and the term as applied to a measurement of length probably arose from the habit of taking measurements from or by the length of the first or nail joint of the thumb, which on the average is about equal to the length of an inch; Ger. *Zoll*—pron. tsoll, which means literally “a toll.” The word *Zoll* is from *Zahl*, number, and *zahlen* is to pay or count out the money, like the Latin *numerare pecuniam*. From the same root is the expression “to tell (count) a sum of money” (*Geld zählen*).

Inclination, in Construction. A part or surface which is inclined or on the slope, as the sides of a roof. Syn. Fr. *Pente*—pron. pahnt, or *Talus*, which latter term is generally applied to the sloping incline of an embankment or earthwork; *Obliquité*—pron. ob-lee-kwee-tay; also *Inclinaison*—pron. aihn-klee-nay-sonn; Ger. *Shiefe*—pron. shee-feh. Inclination of the rafters of a roof: Syn. Fr. *Rampe de chevron*—pron. rahmp deh shevv-ron; Ger. *Schiefe der Dachsparren* (roof spars or timbers)—pron. shee-feh derr dach-spar-ren.

Incline (as in Handrailing), in Joinery

—the handrail (which see) being on the incline or slope. Syn. Fr. *Rampe*; Ger. *Schief*—pron. sheef.

Inclosure, in Building. A space fenced or boarded off (see Hoarding), in which work may be carried on. Der. From the Latin verb *includere*, and this from *in* and *claudere*, to shut in or enclose. Syn. Fr. *Enclos*—pron. ahn-kloh; Ger. *Umfassungsmauer*, or *Einhäugung*—pron. oom-fass-oongs-mow-err, inehay-goong.

Indent, To, in Building Construction. A term used, as in carpentry, signifying that notches or depressed parts have been cut out of a surface, as in scarfing a beam. Those depressions are generally terminated by a vertical or nearly vertical end, the other part sloping away from this, so that when a number of indentations are made a toothed-like surface is produced. The word indent involves this idea, for it is derived from the Latin *indentare*, and this from *in*, and *dens*, a tooth. The French synonym is from the same root: *édenter*—pron. eh-dang-tay; also *denteler*—pron. dahn-te-lay; also *creneler*—pron. kray-neh-lay, to notch. The German synonym involves the same idea: *bezahnen* (from *Zahn*, a tooth)—pron. bay-tzahn-en; also *Zähnen*—pron. tsay-nen; also *ausfeilen*—pron. owss-file-enn (*feilen*, to file); also *auszacken* (*zacken*, to notch or indent)—pron. owss-tzack-enn.

Indian Architecture. The resemblance between the leading features of Indian architecture and those of Egyptian (which see) is so marked that there is little doubt but that the Hindūs borrowed their style from the Egyptians. The same massive and imposing style of column, with heavy shafts and bulging-out and ponderous capitals, characterise both. The feature of the pyramids of Egypt is also found reproduced in India, in some of the most celebrated pagodas, such as that at Tanjore. The general form is different, starting as the pyramidal or tapering point does from a rectangular base, and the top is truncated and finished with a dome or cupola, while the sides or surfaces are beautifully decorated. The gate pyramids or gopuras are remarkable specimens of this style. There are some magnificent specimens of Indian, or as it is otherwise called Hindū, architecture existing in India. Of these there are two classes—those excavated or cut out of the solid rock, and those constructed or built. Of the first the rock-cut temples at Ellora are the most remarkable. These are so extensive, so gigantic in proportions, and are characterised by such an infinity of detail, that it is difficult to give credence to the statements of travellers who have visited the place and described what seem to be more the creation of a rich fancy than the sober details of fact. The temples at this

celebrated place are not, however, all excavated or hollowed out from the rock, the chambers and halls being, so to say, entombed within the mass; but some are cut or carved—if this latter term can be employed in such gigantic work—out of the solid, so that the temples are as completely isolated as if they had been built in the usual way from the foundation. Of this class of rock-cut work, the most celebrated is the temple known as the Kylas at Ellora. Hindū or Indian architecture with many is supposed to be of a low or degraded kind, but this is so far from the case that there is abundant evidence throughout our possessions in the East that the science of architecture has been and is thoroughly well understood even in its highest development as a constructive as well as a decorative art by the native architects. Those who can make reference to such works as Fergusson's "History of Architecture" will find numerous illustrations of this. There is a balcony from the Observatory at Benares figured in this work, which affords in itself proof of the high ability of the native architects. Those who can obtain access to the *Journal of the Society of Arts* will find also, in a paper recently read before the Society on "Indian Architecture," principally street or domestic architecture, evidence enough how infinitely the Indian architects are before us in this department. (See Saracenic Style.)

Ink, in Architectural Drawing. Generally known as Indian or China ink. It is made in the form of a long, thin, and narrow cake, composed of the finest lampblack and a cementing gum, to which is added some scented or odoriferous gum. The finest Indian ink is free from all gritty substances, and rubs down with water to any depth of tone or degree of blackness required. Der. generally from the Danish *ink*, or from the Latin *encaustum*, and this from the Greek *egkaustos*, meaning something burnt-in, that is indelible. Syn. Fr. for ink generally, *Encre*—pron. ahn-kerr; Ger. *Dinte* or *Tinte*—pron. dinn-teh, tiinn-teh: for drawing ink, Syn. Fr. *Encre de Chine*—pron. ahn-kerr deh sheen; Ger. *die Tusche*—pron. toosh-eh.

Inlay, in Cabinet Making, with enamel work. Syn. Fr. *Niellage*—pron. nee-ell-ahj (from *nieller*, to engrave with enamelled surfaces, generally black in colour—pron. nee-ell-eh). Another term more frequently used is *Marqueterie*—pron. marr-keh-tree (from *marqueter*—pron. marr-keh-tay—to inlay, to make patchwork, to spot or mark with different colours). Syn. Ger. *einlegen mit Schwarz*—pron. ine-lay-genn mit shvahrts; for *marqueterie*, *einlegen*—literally "to lay in"—pron. ine-lay-genn.

Inlay, To, in Construction. To fix in or lay in the surface of a body pieces of different

forms and sizes. When pieces of wood are inlaid in a floor, the purpose is, by using pieces of different forms and colours, to form a pattern or design. Syn. Fr. for this kind of work *Parquetric*—pron. parr-kett-ree (from *parqueter*, to inlay—pron. parr-keh-tay); Ger. *Tüfeln*—pron. tay-feln.

Inlet, in Construction. A term sometimes used to indicate an aperture in a wall or a recess in a beam into which another part is to be housed or inserted. Generally the term is used in connection with some definite part of construction, as an *Inlet Pipe*, the French synonym for which is *Tuyau d'entrée*—pron. twee-oh dahn-tray; Ger. *Einflussrohr*—literally an inflow pipe (*Rohr*, a tube or pipe)—pron. ine-flooss-rohr. An *Inlet Sluice* in French is *Ecluse de chasse*—pron. eh-kloos day shass; Ger. *Einflussschleusse*—pron. ine-flooss-shloyss-eh.

Inner Side, in Construction, as of a wall or a beam. Syn. Fr. *Parement intérieur*—pron. pahrr-mahn aihn-tarc-ee-eure; Ger. *die innere Fronte*—pron. dee inn-arr-ay fron-tay.

Insert, in Construction. To join together, to put one piece in connection with another, as a tenon inserted, pushed, or driven into the mortise. Der. From the Latin *inserere*—from *in*, and *serere*, to join or connect. Syn. Fr. (almost identical with the Latin word) *insérer*—pron. aihn-sair-ay. Insertion is in French the same in spelling as our word—pron. aihn-serr-see-onn; Ger. *Einrücken* (from *rücken*, to push or force or place in)—pron. ine-rueck-enn.

Inside, in Construction, as the inside of a wall (see Inner Side). *Inside diameter*, as of a hole or ring, or the curb of a well; Syn. Fr. *Diamètre de l'intérieur* or *d'intérieur*; Ger. *Durchmesser* (literally a "through measurer"). *Inside shutter* of a window; Syn. Fr. *Volet intérieur*—pron. voh-lay-taihn-tair-ee-eur; Ger. *innerer Fensterladen*—pron. inn-air-err fenn-sterr-lah-denn.

Intercolumniation, in Architecture. A term used to indicate the way in which the columns or pillars of a building are arranged in relation to one another—that is, the distance or intervals between the pillars in proportion to their diameters. Der. From the Latin *inter*, between, and *columna*, a pillar or column. Syn. Fr. *Entrecolonnement*—pron. ahn-terr-coll-onn-mahn—that is, arrangement of the spaces between the columns; also *Espacement des colonnes*—pron. ess-pahss-mahn day coll-onn. When pilasters (see Pilaster) are used in place of columns the term is *Entre pilastre*; Ger. *Säulenweite*—literally "column or pillar width"—or *Säulenraum*—literally "column space"—pron. zoy-lenn-vih-teh or zoy-lenn-rowm.

Intercolumniation, Styles or Classes of, in Architecture. Where the space or interval between any two columns is equal

to two diameters of the column the arrangement is known as "Systyle." Syn. Fr. *Entrecolonnement systyle*—pron. ahn-terr-coll-onn-mahn sys-teel; Ger. *Naheäulig* (*nahe*, nigh or near), meaning that this class is that in which the columns are nearer to each other than in the other classes of intercolumniation, such as "Eustyle," in which the spaces or intervals between the columns are equal to two-and-a-quarter diameters of the column. Syn. Fr. *Entrecolonnement eustyle*; Ger. *schöne Säulenweite*—literally "the fine (*schön*, fine) column width," referring in this to the opinion held by the great architectural authority Vitruvius, that this was of all the classes of intercolumniation the finest or best. "Diastyle."—In this class the space or interval between the columns is equal to three diameters of the column. Syn. Fr. *Entrecolonnement diastyle*; Ger. *Weitsäulig*—pron. vite-zoy-lich.

Intersection, in Architecture. Der. From the Latin *inter*, between, and *seco*, I cut; thus, when two lines, right or curved, cross each other, the point of meeting is called the point of intersection. Where arches meet, as in a vault or dome, they are said to intersect. The term has a wide application in construction, as beams or joists crossing each other are said to intersect. Syn. Fr. the same word as ours in spelling—pron. aihn-terr-sex-yonn (intersected, *intersecté*—pron. aihn-terr-sek-tay); Ger. *Unterschnitt*—pron. oon-terr-shnitt—literally "under or between cutting."

Interstice, in Construction. A narrow void or space in a body, or between two bodies. Der. From the Latin *interstitium*, and this from *inter*, between, and *sistere*, to stand. Syn. Fr. *Interstice*—pron. aihn-terr-steecce, or *Intervale* (see Interval); Ger. *Zwischenraum*—literally "between space" (*Raum*) or "space between"—pron. tsvish-enn-rowm.

Intertie, in Carpentry. A piece of timber placed between and fixed or inserted into two contiguous timbers, as the trimmer-beam (which see) between the two floor or trimmer joists. Syn. Fr. *Entretoise*—pron. ahn-terr-twahz; Ger. *Zwischenbalken*—pron. tsvish-enn-ball-kenn—literally "a between beam."

Interval, in Construction. The space between two parts or bodies, as between joists or beams, or the spaces between windows in the story of a building. Der. From the Latin *intervallum*, and this from *inter*, between, and *vallum*, a wall. Syn. Fr. *Espacement*—literally "the spacing"—pron. ace-pass-mahn; Ger. *Zwischenraum* (see Intertie).

Intrados, in Building. The inner line or curve of under or concave side of an arch, sometimes also called the soffit. Syn. Fr. *Intrados*; also *Douelle*—pron. doo-ell; Ger.

innerer Bogen—literally “the inside of” or “the inner arch.”

Invert Arch, in Building. An arch reversed, with the intrados uppermost and extrados invert—an arrangement used in forming the curved parts of tunnels, or culverts, sewers, etc. *Der.* From the Latin *invertere*, and this from *vertere*, to turn, to place upside down or reverse in position. Syn. Fr. *Arc à l'envers*; Ger. *umgekehrter Bogen*—literally “inverted arch”—pron. oom-gay-kairt-err boh-genn.

Ionic Order, in Architecture. The second of the three Classical orders of Grecian architecture, and so called from the fact that the order owed its introduction to the Ionians. In the Roman style, it is the third of the five orders of architecture so called. It constitutes in its simple elegance a fine medium between the massiveness of the Doric and the graceful and richly decorated Corinthian. The leading feature of the Ionic order, and that by which it is best known and most easily distinguished, is its capital, with its spiral volutes one at each corner. The shaft of the column is fluted with twenty-four flutes, the fillets between the flutes being semicircular or half-round in surface. The base varies much in detail according to different authorities: what is known as the Attic base is frequently adopted in the order. The cornice varies also: in some examples it is a plain Grecian cornice, in others it is the Dental, and in others the Modillon cornice (which see). Syn. Fr. *Ordre Ionique*—pron. orr-derr ee-onn-eek; Ger. *Ionische Säulenordnung*—pron. ee-ohn-ish-eh zoy-lenn-ordd-noong.

Iron, in Materials. The metal known as such is produced or manufactured in various forms and classes, suitable for the different classes of work in building construction. *Der.* From the Old English *iren*. Syn. Fr. generally *Fer*; Ger. *Eisen*. For pure metallic iron: Syn. Fr. *Fer métallique*—pron. fairr mett-ahl-eek; Ger. *metallisches Eisen*—pron. met-ahl-ish-ess i-zen. For *Cast Iron*, known in the trade as pig, the direct product of the blast (smelting or reducing)

furnace: Syn. Fr. *Fer fonte* or *Fer coulé* (see *Cast Iron*); Ger. *rohes Eisen*—literally “raw iron.” For *Wrought or Malleable Iron*, produced by the processes of puddling, shingling, re-heating, and hammering: Syn. Fr. *Fer forgé* or *Fer de forge*; Ger. *Schmiedeeisen*—pron. shmee-day-i-zen. For *Angle-iron*: Syn. Fr. *Fer d'angle* or *Fer à cornières*—pron. ferr dahn-gell, ferr ah korr-nee-aire; Ger. *Winkelisen*—pron. vin-kell-i-zenn. For *Hoop-iron*: Syn. Fr. *Fer en rubans*; Ger. *Bandeisen*. For *Iron Wire*: Syn. Fr. *Fil de fer*; Ger. *Eisendraht*. For *Galvanised Iron*: Syn. Fr. *Fer zingue* or *Fer galvanisé*; Ger. *verzinktes Eisen*. For *Sheet Iron*: Syn. Fr. *Fer battu non étainé*—literally “iron beaten or black not tinned” (from *étainer*, to tin); Ger. *schwarzes Blecheisen*—literally “black (not tinned) plate iron” (*Blech*, a plate)—pron. shvartz-ess blech-i-zenn. For *Ironwork* generally: Syn. Fr. *Fers d'ouvrage*; Ger. *Eisenwerk*. For *Ironwork for Doors and Windows*: Syn. Fr. *Quincailerie*—pron. kaihn-kahl-yay-ree; Ger. *Thür und Fenster Eisenwerk*—pron. tüer oond fenn-ster i-zenn-vairrk. For *Ironmonger* (or perhaps more correctly *Ironworker*, such as a locksmith): Syn. Fr. *Serrurier constructeur*; Ger. *Bauschlosser*. For *Iron Framing*: Syn. Fr. *Charpente à fer*—literally “iron carpentry”; Ger. *Gerippe von Eisen* (*Gerippe*, a framework, skeleton). For *Iron Frame*: Syn. Fr. *Couple en fer*—pron. koo-pell ahn fairr; Ger. *Rahmeneisen*. For *Iron Building*: Syn. Fr. *Fer de charpente*; Ger. *Baueisen*. For *Iron Fastenings*: Syn. Fr. *Armure en fer*; Ger. *Beschlageisen* (*Beschlag*, a clasp or fastening). For *Iron Plate*: Syn. Fr. *Plaque en fer*; Ger. *Eisenplatte*.

Italian Architecture. An adaptation, and in the opinion of many a debased alteration, of Classical architecture. The style so called was introduced by Palladio. Of the modern Italian there are, however, some beautiful examples—perhaps the finest specimens being that division of the style known as the Venetian.

J

Jack Plane, in Tools. Otherwise called a trying plane. The first tool used by the joiner in planing, being employed to take off the rough surface and prepare it for the smoothing planes. It is comparatively light and short, so that it can be used if necessary with one hand. Syn. Fr. *Demi-varlope*—literally “half plane”; Ger. *kleine Rauhbank*.

Jack Rafters, in Carpentry. The short rafters meeting the hip rafters and filling in the spaces at the ends of a hipped roof. “Jack timbers” is a term used to indicate

that those timbers are shorter than others in the framework. “Jack ribs” are the short pieces of timber used in meeting the angle ribs in groins, etc.

Jack Screw, or Lifting Jack, in Building Appliances. A mechanical arrangement consisting of a strong vertical frame supported on a wide-spreading base, carrying a large screw with notched or clawed table or top. The apparatus is placed under a heavy part to be moved or raised, the screw being turned by a hand lever taking into apertures

made in a well in the screw stem. Syn. Fr. *Cric à vis*—pron. kreek ah vee, or *Vérin*—pron. vay-raihn; Ger. *Hebezug*—literally “a lever screw”; also *Daumkraft*—literally “a strong thumb-screw.” This word, but slightly altered—namely, “dumbcraft”—is employed in some districts of the kingdom to indicate a lifting windlass or crab.

Jagging, in Carpentry. A term used sometimes as synonymous with notching or indenting (which see). Syn. Fr. *Dentelure*—pron. dahn-tay-luhr (from *dent*, a tooth); Ger. *Zackenschnitt*, an indent or notch cut (from *zacken*, to indent, and *Schnitt*, a cutting incision).

Jam—Jamming, in Construction. When a body, as a stone or a piece of timber, is pressed forcibly or kept tight between two other bodies, it is said to be jammed up. Syn. Fr. *Server* or *Presser*; also *Pincer*; Ger. *Befestigen*.

Jamb, in Construction. The vertical side of an opening or void in a wall, as that of a door or window, or the sides of a recessed part, such as of a fireplace. Der. From the French *jambe*, a leg—as the jambs of a door, for example, may be taken as the legs on which the upper part or lintel stretching across the opening is supported. Syn. Fr. *Jambettes* or *Jambages*; also *Montants*; Ger. *Ständer*, supports—of a window, *eines Fensters*; of a door, *einer Thür*; of a fireplace, *eines Feuerplatzes*.

Jamb-lining, in Joinery. The thin wood used to line the door or window opening. The edge of this towards the room is usually finished off with a quirk bead (which see). Syn. Fr. *Chambrane* or *Garniture d'une fenêtre* or *d'une porte*; Ger. *Verkleidung*—of a door, *Thürwerk*; of a window, *Fensterwerk*.

Jamb-post, in Masonry and Carpentry. In a stone wall the side posts or jambs of an opening, as of a door. Syn. Fr. *Pied-droit en pierre*; if the post be of wood *Pied-droit en bois*—literally “a stone (or wood) right foot”; Ger. *Steingewände* or *Holzgewände*—pron. stine-geh-venn-deh, holts-geh-venn-deh.

Jet, Gas. That part of a gaslight fixing through which the gas finally passes, and at which it is lighted or consumed, and the arrangement of the aperture of which gives the shape or form to the flame, such as the “bat’s-wing,” “rat’s-tail,” etc. Syn. Fr. *Bec à gaz*—literally “gas beak”—pron. beck ah gahz; Ger. *der Gasbrenner*.

Jib or Jibb Door. A door concealed in a wall or partition, being painted or papered over with the same colour or design as the wall surface generally. Syn. Fr. *Porte perdue*—literally “a lost door”; Ger. *Tape-tenthür*—literally “a tapestry door” (from *Tapete*, tapestry hanging, the door being concealed by tapestry or hanging cloth).

Jib, in Mechanical Building Appliances.

Part of a lifting crane, so called from its resemblance to the position of the jib sail or jib-boom of a ship. Syn. Fr. *Flèche de grue*; Ger. *Krahnbalcken*—literally “crane beam.”

Job—Jobbing, in Construction. In the execution of work, a term more frequently used to denote that its extent is small, or comparatively so; the term “contract” being that employed when the extent of work to be done is great. The derivation of the word is uncertain: some authorities maintain that it is simply a corruption of *chop*, to cut up into small pieces, since a contract if divided in its work gives rise to a series of “jobs” or small pieces, being thus chopped or jobbed up. “Jobbing” is a term used to indicate the doing of sundry small pieces of work, such as the finishing up of the various departments of a large contract—i.e., completing small portions of work which may have been overlooked. A “jobber” may therefore be considered as a workman possessing a knowledge of a number of kinds of work. Syn. Fr. for “job,” *Corvée*—pron. kohr-vay; Ger. *kleine Arbeit*—literally “little or small labour”—pron. kline-nay ahr-bite. Syn. Fr. for jobber, *Ouvrier à façon*—i.e. one able to do all kinds of work according to their kind or fashion—pron. oov-ree-ay ah fah-sonn.

Joggle, in Masonry. A piece of stone cut in the form of a dovetail, used to connect two blocks of stone together. Apertures corresponding in size and shape to half of the “joggle” are cut in the centre of the edges of the two stones, so that when they are brought together face to face an aperture of the same size and form as the joggle is formed; and into this the solid stone joggle is passed, and from its double dovetail it keeps the two blocks in contact, preventing one from being slipped aside and out of connection with the other. In many cases the “joggle” is made of iron. Syn. Fr. *Joint de marche*—literally “a step joint,” as it is often used for stone stairs; Ger. *Treppenfuge*, the meaning being the same as in the French synonym. The term “joggling” is often used as synonymous with scarfing in “Carpentry,” but in which keys or joggles of wood are inserted in grooves, by which the connection of the two beams is made more secure. Syn. Fr. *Assemblage des poutres en adent*—literally “joining of beams in tooth-shaped fashion”; Ger. *gezahnte Balkenverbindung*—literally “toothed (or scarfed) beam joining or binding.”

Joiner—Joinery, in Construction. The work of the joiner is distinct from that of the carpenter—both of which, however, deal with timber—in the fact that it deals with the smaller objects of construction, such as the interior fittings of a house, doors, windows, and work of a character more or less

decorated. The work of the carpenter is confined chiefly to the designing and construction of those parts of structures which are large in dimensions, and the parts of which are of comparatively great weight and bulk, such as roofs, partitions, and floors. The work of the joiner, dealing as it does with small objects, is distinguished also from that of the carpenter in this—that the wood is dressed or tooled so as to be smooth in surface, and parts more or less ornate are either worked upon or added to the surfaces, which parts are known generally as mouldings. This work necessitates the use of a large number of tools of various forms and degrees of fineness. In the work of the carpenter the timbers are, as a rule—the exceptions being very few—left rough or in the condition in which they are supplied from the timber dealer or come from the saw-mill. Syn. Fr. for Joiner, *Menuisier*—pron. mehn-weeze-yea; Ger. *Tischler*—pron. tish-lerr—literally “a table maker” (from *Tisch*, a table), although this is a more appropriate synonym for our term cabinet-maker; also *Schreiner*—pron. shrine-nerr (from *Schrein*, a box). For Joinery or Joiner's Work: Syn. Fr. *Menuiserie* or *Ouvrage de menuiserie*—pron. mehn-weeze-er-ree; Ger. *Schreinerarbeit*—pron. shrine-err-ahr-bite. For Joiner's Workshop: Syn. Fr. *Atelier de menuiserie*—pron. ah-tell-yea de mehn-weeze-er-ree; Ger. *Tischlerwerkstätte*. For Joiner's Work Bench: Syn. Fr. *Etable* (board, bench) *du menuisier*—pron. eh-tah-bel deh mehn-weeze-ee-ay; Ger. *Hobelbank*—pron. ho-bell-bank (from *hobeln*, to plane).

Join, To, in Carpentry and Joinery. To bring two or more pieces together, to place and keep in contact. Der. From the French *joindre*, to join, and this from the Latin *jungere*, and this again from *jugum*, a yoke, a yoking together or joining. Syn. Fr. *Enter*—pron. ang-teh; *Jointer*—pron. jwang-teh; *Assembler à rainure*, or *Emboiter*—pron. ahm-bwatt-eh—literally “to embox” (from *boîte* [bwatt], a box); Ger. *Einfügen* (from *fügen*, to join, to fit, to groove).

Joint, in Construction. The completed junction or joining of two or more pieces. Syn. Fr. *Joint*, *Articulation*—pron. jwahn-t, ah-tee-cue-lah-see-on; Ger. *Fuge*—pron. foo-gay. The forms of joints are very numerous, and can only be clearly understood when the descriptions are aided by illustrations.

Joists, in Carpentry. The beams of smallest section, or, to use the popular phrase, the lightest beams in a floor framing, or those, namely, which support or carry the flooring boards, are so called. The other and heavier timbers of the floor framing are the “girders,” “binding joists,” and “bridging joists.” Der. From the Old English

giste, from *gésir*, to lie upon, the flooring or walking-on boards lying upon or being secured to the joists. Syn. Fr. *Solive*; also *Support de parquet*—pron. pahr-kay—an inlaid floor or floor generally, and this from *parqueter* (pahr-keh-teh), to inlay; Ger. *Balken*, or *Stützbalken*, or more specifically *Balken unter dem Fussboden*—literally “the beams under the floor or foot-ground or surface.” In some cases the term joist is applied to all the timbers of a floor, this chiefly in framed (not double-framed) floors; and when so the heavy joists or timbers, such as the bridging joists, are distinguished by the term “principal joists,” the smaller or lighter as the joists proper—the “common joists.” Syn. Fr. for those terms, *Solive principale*—pron. soh-lee-ve (a small joist being a *solivette*—pron. soh-lee-vett); Ger. for principal joist, *Hauptbalken*; for common joist, *Stützbalken*; for little joist, *kleine Balken*.

Journeyman. A term used to indicate the difference between a workman who works for wages, at so much per day or week, and who can be engaged or dismissed at those periods, and an apprentice who is engaged to work for a term of years, and at wages more or less nominal. Der. From the French *journée* (jhoor-nay), a day's work, a day's travel, etc., and this from *jour*, a day; and from the Latin *diurnus*, and this from *dies*, a day. Syn. Fr. for journeyman, *Ouvrier*—pron. oo-vree-ay, and this from *Ouvrage*, work—pron. oov-rahj; Ger. *Tage-löhner*—pron. tah-gay-loehn-err (from *Tag*, a day, and *Lohn*, pay, wages, and this from *lohn* [loh-nen], to pay or reward); also *Lohnarbeiter*—pron. lohn-ahr-bite-err—literally “a wage workman.”

Jumper, in Quarrying Stone. A chisel-pointed tool, with a long bar or tail, used for making the holes in stones for blasting purposes. The “jumper” is held by one man who keeps turning it round and lifting it up and allowing it to drop, while another man strikes the upper end of the tool with a hammer. This process, continued for a length of time, bores a hole in the stone of the required depth to receive the charge of blasting material, such as gunpowder, nitroglycerine, etc. Syn. Fr. *Barre à mine*—literally “a mine or mining bar”—pron. barr ah meen; Ger. *Steinbohrer*. To “jump” is to work the jumper or make the hole, for which the French synonym is *Creuser le trou du pétard*—literally “to hollow out or dig the hole of the petard or blasting cartridge”—pron. kreuh-zay leh trou duh pay-tarr; Ger. *Steinbohren*; also *Steinsprengen* (from *sprengen*, to blow up, to burst, to break open by explosion).

Junction, in Construction. A term often used as synonymous with joint. Der. From the Latin *junctio*, and this from *jungere*, to join. Syn. Fr. (almost identical with our

word) *jonction*—pron. jhonck-see-onn, and this from *joindre*—pron. jwahn-derr, to join; Ger. *Verbindung*—pron. ferr-binn-doong (from *binden*, to tie, to connect together).

Justify—Justification, in Construction. A term often used as synonymous with to adjust, or adjustment, as setting one piece of timber square with another by means of the “square.” *Der.* From the Latin *justificare*, to show to be right or just, and this from two Latin words, *justus*, and *facere*, to make. Syn. Fr. for justify is *justifier*—pron. jhues-teef-ee-eh; for justification, *approche*; Ger. *Zurichten, Justirung*.

Just out or Jutting out, in Construction. Terms often used as synonymous with to

project, or projecting. The term is a corruption of our word “jet,” to spring or spout out or forward. Syn. Fr. *Pousser*—pron. pooss-eh, to push out; also *Resauter*—pron. ray-soh-tay (from *sauter* [soh-tay], to leap); Ger. *Vorsprung bilden*—pron. forr-sproong-bill-den (from *Sprung*, a leap, a jump, and *bilden*, to shape or to form). Thus a bay, or a bow, or an oriel window is jutting out. Syn. Fr. for a projecting window is *Fenêtre en saillie*—pron. fenn-eh-ter ahn sahl-ye (saillie is projecting—from *saillir*, to project, to push or spout out); Ger. *Erkerfenster*—literally “a bow window” (*Erker*, a bow).

K

Kerbstone, in Roadmaking or Paving. The stone edging which runs along the outer edge of a footpath, separating it from the main road or from the gutter. The term is a corruption of Curb (which see), or it may be from the German *Kerb*. Syn. Fr. *Bordure de trottoir*—literally “the border of the footpath”—pron. bohr-duehr deh trot-wahr; Ger. *Kerbstein* (*kerben* is to notch, indent).

Kerp. The void or free way which a saw makes in the wood as the sawing progresses, the kerp preceding the saw.

Key, in Ironmongery, in Construction, and Tools. The appliance used for opening and closing the bolt of a lock. *Der.* From the Old English *cag*. Syn. Fr. *Clef*—pron. klay; Ger. *Schlüssel* (from *schliessen*, to close). The term “key” in construction is synonymous with *Cottar*, meaning a body formed like a wedge, which is driven up into an aperture, or between two other bodies by which they are tightened and held together. It is usually made of iron. Syn. Fr. *Clavette* (from the Latin *clavis*, a key). When of wood it is generally in the form of a longish piece, but square in section, and is let into, or driven up into, grooves, forming a square aperture between two pieces, as the face of a beam, the “key” holding the two together and preventing lateral movement. Syn. Fr. *Clef d'une poutre*—pron. clay d'uehn poo-terr—literally “the key of a beam”; also *Crampon*—pron. krahm-pohn; Ger. *Balkenschlüssel*—pron. bahll-kenn-shlues-sel—literally “beam key.” In *Tools* the “key” is an appliance having a long handle or tail, with a flat head, in the face of which is cut a square aperture. It is used to tighten up or loosen the nuts of screw bolts, the side of the nut passing into the aperture in the head of the key, and the leverage being exerted by the handle or tail. The name by which the

appliance is most generally known is “spanner.” Syn. Fr. *Clef à boulon*—pron. clay ah bool-onn; Ger. *Bolzenschlüssel*—pron. bolts-enn-shlusz-sel—both literally meaning “bolt-key.”

Keystone, in Masonry. The stone placed at the centre or highest part of an arch, and shaped like a wedge—truncated—sloping equally on both sides, is so called. It is sometimes called a “bond stone.” It is the last stone placed in building an arch; and when the “centre” is removed, it acts as a wedge for closing up the stones or voussoirs of the arch. Syn. Fr. *Clef de voûte* or *Clef d'arc*—pron. clay de voot, clay darrk—literally “vault or arch key”; Ger. *Bogenschluss* or *Schlussstein*, arch key or keystone.

Kiln, Brick. A structure consisting of a large chamber, in which bricks are piled up, in order to be “fired” or calcined—the heat for the same being obtained from a series of furnaces made at the lower part of the structure, the flames and heated air from which pass up through specially made apertures. *Der.* From the Old English *clyn*, and this, it is conjectured, from the Danish *kylla*, to kindle. Syn. Fr. *Four à briques*—literally “brick furnace”; Ger. *Ziegelofen*—literally “brick (ziegel is brick) oven.” Syn. Fr. for a “lime” kiln, *Four à chaux*—pron. foor ah show; Ger. *Kalkofen*—pron. kalk-oh-fenn.

King-post, in Carpentry. The member in a king-post truss so called from its being the principal or chief feature of the framing. Syn. Fr. *Poinçon* (see *Puncheon*) *d'un ferme*—pron. pwang-son duhn fairrm; also *Susfaite*; Ger. *Hängesäule*—pron. heng-geh-zoy-leh (literally “a hanging pillar”)—or *Hängepfoste*; also *Schlusspfoste*—that is, a locking post. When the office of a timber king-post is performed by an iron rod the member is called a *King-bolt*. Syn. Fr. for

this is *Houzon maîtresse*—pron. booh-long may-tress—literally “the mistress” or “head bolt”; also *Cheville maîtresse*—literally “the chief peg”; Ger. *Hauptbolzen*—pron. howp-boll-tsen—literally “the head bolt.”

King-post Truss or Roof, in Carpentry. It is so called from the king-post being the principal or chief post in the truss. It is the central vertical post, resting on the “tie beam” (which see) at its lower end, and carrying at its upper termination the ends of the rafters (which see). These butt against the sides of the head of king-post, and are supported about the middle of their length by obliquely-placed timbers called “struts” or “braces” (see Strut), the lower or inner ends of which butt against the sides of the lower part of king-post, a little above the tie beam. The lower ends of the rafters are jointed to the tie beam. Syn. Fr. *Ferme à une clef pendante*—pron. fairrm ah uehn clay pah-n-dahnt—literally “a frame or truss with a hanging key”; Ger. *Dach mit einer Hängepfoste*—literally “roof with a hanging post”—the king-post apparently being suspended from the upper end of the rafters.

Kitchen, in Domestic Architecture. The apartment of a dwelling in which the cooking and general work of the house is carried on. Der. Either from the Old English *cyc(h)en*, or the German *Küche*, kitchen—most probably from the latter. Syn. Fr. *Cuisine*—pron. kweez-een (from *cuire* [kweer], to boil, to bake, to cook—more directly from *cuisiner* [kweeze-een-eh], to cook, to dress victuals); Ger. *die Küche* (from *kochen* [koch-enn], to cook). Our word cook comes from the German *der Koch*, *die Köchin*, the (man) cook, the cook-maid.

Kitchen Dresser or Table, in Joinery or Cabinet Making. The large table on which the cooking and other operations of the kitchen are done. In good dressers, while the lower part—which is generally arranged with a series of drawers and cupboards—is made of yellow or red pine, the “top,” or working surface, is of plane tree or sycamore wood, or close-grained timber which gives a smooth and polished surface. The term “dresser” is purely French, in which it is pronounced *dressay*—meaning to prepare, to dress, to finish. Syn. Fr. for kitchen dresser *Table de cuisine*—pron. tah-bel deh kweez-een; Ger. *Küchentisch*, “kitchen table.”

Kitchen Range, in Ironmongery. The fireplace, with appliances for cooking, such as oven, boiler, hot-plate, etc., given to the kitchen. The term is an abbreviation of the word “arrange,” and indicates that the various parts are arranged in proper relation to each other, and all in connection with the central fireplace, which is of small dimensions as compared with the fireplace or grate in an ordinary kitchen. Syn. Fr.

Fourneau potager—literally “pottage furnace” (pottage soup is from this). Another term frequently used is *Poêle de cuisine anglaise*—i.e., English kitchen stove—pron. po-ahl deh kweeze-een ahng-laizé—so called from this form of cooking range having been originally brought out in England, and to distinguish it from the closed cooking stove ordinarily used in France, and for which the synonym is *Poêle ou Four à cuire*, stove or furnace for cooking, to distinguish it from the stove used for warming the air of an apartment, and which is called simply *Poêle*. Syn. Ger. for kitchen range, *Küchenofen*, kitchen oven or stove.

Kitchen Utensils, Furniture, including the shelving on which the utensils are ranged or kept while not in actual use. Syn. Fr. *Batterie de cuisine*—literally “a kitchen battery”—pron. bat-ter-ree; Ger. *Küchengeschirr* (*Geschirr*—pron. geh-shearr—vessels, implements, ware)—literally “kitchen vessels.”

Knee, in Handrailing (Staircasing). That part of the handrail of a stair which presents a convex upper surface, as where the sloping handrail joins the horizontal rail at the landing. Der. The term “knee” is from the Old English *knea*, the joint connecting the lower and upper parts of the leg. The term is often used in construction as synonymous with angle or elbow. Syn. Fr. *Genou*—pron. jeh-noo, the knee; for elbow, *coudé*—pron. kood; Ger. *Knie*—pron. knee (the k being sounded); elbow, *Ellbogen*. Timber naturally or artificially bent to form a knee or angle is in French *Bois coudé*—pron. bwah kood-eh, or *Bois genouillé*—pron. jeh-nooy-eh.

Knob, in Door or Window Furniture, as a door knob, the projecting part by which the lock is turned—the handle by which the door is opened and closed (see Door). Der. From the Old English *cnoep*, or more probably from the Danish *knob*, meaning a projecting hard and solid body. Syn. Fr. for door knob, *Bouton en olive*—pron. bootonn ahn oh-leave (see Door for this term); Ger. *Thürknoopf*—pron. tuehr-knooppf.

Knots, in Timber. The hard parts of timber generally of a deeper or different colour from the general surface. The knots indicate the places or positions of the branches of the tree where they spring from the bole or body. Der. Either from the Old English *cnot*, or a corruption of the Latin *nodus*, a knot, or from the German *Knoten*—pron. know-ten (sounding the k). Syn. Fr. *Nœud*—pron. neuh; Ger. *Knoten*.

Kyanising. A method of preserving timber, so called from the name of the inventor, Kyan. The method consists in impregnating the timber with a preparation of corrosive sublimate. Syn. Fr. *Kyaniser du bois*—pron. key-ah-neeze-eh duh bwah. Ger. *Kyanisiren*—pron. kee-ann-ease-car-enn.

Label, in Architecture. A term synonymous with Weather Table or Dripstone (which see). *Der.* From the Latin *labelum*, the diminutive for *labrum*, a margin, lip, or edge. Syn. Fr. *Larmier*—pron. lahr-mee-eh; also *Couronne du corniche*—literally “cornice crown”; Ger. *Rinnleiste* (from *rinnen*, to drop, and *Leiste*, a band or border); also *Kranzleiste*—literally “a crown, band, or channel”—pron. rinn-lice-teh, krahnts-liche-teh.

Labourer, in Construction. One employed in doing work which demands little knowledge or skill—chiefly physical exertion—as a bricklayer’s labourer, who carries the bricks and mortar to the points required by the bricklayer, who is the skilled workman. *Der.* From the Latin *labor*, work, bodily exertion. Syn. Fr. for labour, *Travail*—pron. trah-vahyl; Ger. *Arbeit*—pron. ar-bite (from *arbeiten*, to work). Syn. Fr. for labourer, *Manœuvre*; also *Laboureur*; Ger. *Arbeiter*.

Ladder, in Building or Constructive Appliances. A contrivance by which spots elevated above the ground level can be easily and securely reached. It consists of two long side-pieces or small-sectioned beams, connected together by cylindrical pieces or short lengths called “rounds” or “rungs.” These are placed at intervals, the distance between them being equal to an easy step or rise. These rungs or rounds afford footholds, and also gripping pieces for the hands to lay hold of in ascending and descending the ladder. *Der.* From the Danish *ladder*, or the German *Leiter*. Syn. Fr. *Echelle*—pron. eh-shell; Ger. *Leiter*—pron. lite-err (from *leiten*, to guide, to lead).

Ladder, Folding, otherwise and more frequently called a *Step Ladder*. A species of ladder used by painters, etc., made up of two parts. The first or front part is composed of two side-pieces corresponding to the carriages of an ordinary staircase; these side-pieces supporting boarded steps, giving a flat surface to tread upon, like the “treads” of an ordinary staircase (see Treads and Staircase). Hence the term “step ladder,” as denoting that the footholds are not “rounds” or spars, as in the ordinary ladder, but flat steps. The steps are longer at the bottom than at the top, thus giving a tapering form to the ladder, which is terminated by a platform on which the workman stands. The back part is composed of a triangular framing, hinged to the upper or platform end of the steps, so that the lower part of the frame can be opened out, thus giving a broad base to the steps and making them stand securely. The back frame is kept extended when in

use by an iron rod hinged at one end to the step carriage, and hooked at the other, which hook goes into a staple on the frame, Syn. Fr. for a folding ladder, *Echelle brisée*—pron. eh-shell breeze-eh; Ger. *Klappleiter*—pron. klap-peh-ly-terr. Syn. Fr. for step ladder, *Echelon*—pron. eh-shell-onn; Ger. *Treppenleiter* (*Treppe*, steps, stairs)—pron. trepp-penn-ly-ter.

Lancet Arch, in Architecture. The form of arch so called from its outline resembling the point of a lancet. *Der.* The term lancet is from the French *lancette*, a diminutive of *lance*, which is itself derived from the Latin *lancea*, a spear. The lance has curved sides, the spear straight, both terminating in a sharp point. Syn. Fr. *Arc à lancette*, or *Arc à l’ogive*—pron. arrk ah lahn-sett, arrc ah loh-jeeve; Ger. *Spitzbogen* (*Spitz* from *spitzen*, to point); also *Ohrgewölbe*, “ear arch,” so called from its supposed resemblance to the curve of an ear—pron. shpts-boh-genn, oarr-gay-voell-beh.

Landing of a Stair, in Staircasing. The resting-place or platform between one flight of steps and another. A landing may give access to a room or to rooms placed at a lower level than the final or upper landing. Syn. Fr. *Marche palier*—pron. marrrsh pah-lyea; also simply *Palier*; also *Repos d’un escalier*—i.e. “the resting-place (*repos*) of a stair”—pron. reh-poh duhn ess-kall-yea; Ger. *Treppenabsatz*—literally “a break of or in the stairs or steps”—i.e. a part which breaks the continuity of the steps—pron. trepp-en-app-zats.

Lantern of a Staircase, in Building. The skylight or part glazed, where the well-hole is terminated by a cupola or dome, is so called. *Der.* From the French *lanterne*, and this from the Latin *lanterna*, and this from the Greek *lampein*, to give light (our word lamp being derived from this). Syn. Fr. *Lanterne d’escalier*—pron. lahn-tairrn dess-kahl-yea; Ger. *Treppenthurm*—literally “a stair-tower” or “turret”; or *Treppenoberlicht*—literally “the over light” or “upper light of a stair”—pron. trepp-en-toorm, trepp-en-oh-berr-licht.

Lap Joint, in Construction. A joint in which one part of the joint laps over or lies upon the other part. *Der.* The term lap is from the Old English *lappa*, a lap or flap, the Fr. syn. being *Poser à recouvrement*; Ger. *Ueberdecken*—literally “to cover over.” Syn. Fr. for lap joint *Joint à plat*—literally “a plate” or “flat joint”—pron. jwoint ah plah; Ger. *Ueberkante*—literally “over the ledge” or “border.”

Latch, in Ironmongery. The furnishing of a door or gate by which it is kept shut or closed independently of the lock, and often

used in place of a lock. When used for an ordinary door it generally takes the form known as a "thumb latch," so called from the part by which the latch is moved being concave, in the hollow of which the thumb rests in pressing down the latch when the door is to be opened, by releasing the other extremity of the latch from its catch. *Der.* The term latch is from the Old English *laecan*, to seize, to grip, to lay hold of, as the catch seizes hold of the lifting latch. Syn. Fr. *Loquet*—pron. loh-kay; Ger. *Thürklinke*—literally "door link" or "lever"—pron. tuhr-klinn-keh.

Lath and Plaster, in Building. A term used to denote the way in which a wall surface is formed. Syn. Fr. *Lattes et crépi*; Ger. *Latten und Putzmörtel* (lath and trimming mortar).

Lath, Floated and Set, or Set Fair, in Plastering. Work pricked up, the surface of first coat scored or scratched crosswise with the trowel; floated (see Floated), that is, worked fair with the trowel at the second coat; and set, or set fair, that is, with a third coat of fine stuff (see Setting) to receive the painting or papering. Syn. Fr. *Crépi et flottage sur les lattes*—pron. kray-pee eh flot-tahj suer lay latt (*crépi*, rough-cast, *flottage*, floated); Ger. *Dreifachkalkwerk*—literally "three-fold plastered or limed"—pron. dri-fahch-kalkk-vairrk.

Lath, Laid and Set, in Plastering. Two-coat work is so called. In this the first coat is not scored or scratched with the trowel, but is simply made rough, to afford a good key or hold, by brushing the surface with a broom.

Laths, in Plastering. Narrow and thin strips of wood which are nailed to the under sides of the ceiling joists, or in single floors, where there are no ceiling joists, simply to the under sides of the joists themselves, on which the plaster to form the ceiling of the room is laid; the plaster not only adhering to the surface of the laths, but being pressed up between the narrow intervals or spaces between them, becomes hardened or "set," and forms a "key" or hold by which a firm connection between the plaster and the laths is further secured. Laths are also used to form the surface on which the plaster is laid forming the surface of partition walls. Laths are of different thicknesses, classed as "single laths," "lath and half," and "double laths,"—and of different lengths, named as "three-feet" and "four-feet" laths. *Der.* The word lath is from the Old English *lattu*, a rod or staff. Syn. Fr. for "Ceiling lath," *Lattes du plafond*—pron. lah tuh plah-fohn; Ger. *Deckenlatten*—pron. deck-eh-lat-ten. Syn. Fr. for "Partition laths," *Lattes du cloison*—pron. klwah-zon; also *Lattes du partition*—pron. parr-tee-see-on; Ger. *Theilungslatten* (from *theilen*,

to divide)—pron. tile-oongs-lat-ten; also *Scheidungslatten* (from *scheiden* [shy-denn], to separate)—pron. shy-doongs-lat-ten.

Lattice Girder, in Construction. An open-work beam or girder, of which the central part is formed with flat bars of iron or of wood placed crosswise or lattice fashion, the upper and lower ends of the lattices or bars being secured to longitudinal beams of small section. The girder thus formed gives great strength with lightness. Syn. Fr. *Poutre en treillis américaine*—literally "an American trellis beam," this form of girder or beam having been first introduced in America—pron. poo-terr ahn trail-ye; or simply *Poutre en treillis*; Ger. *Gitterbalken* (*Güter*, trellis or lattice); *Gitterbrücke* is a lattice bridge (*Brücke*, a bridge).

Lattice Work, in Construction. Reticulated or net-like work formed by the crossing of laths or narrow and thin strips of wood, or of iron—generally of wood. *Der.* From the French *latts*, lattice work, and this from *latte*, a lath. Syn. Fr. *Lattis*; Ger. *Lattenwerk*. A synonym for lattice work is *trellis work* (see *Trellis*).

Layer. A term synonymous with stratum or bed—a layer of mortar, bricks, etc. Syn. Fr. *Couche assise*; Ger. *Lage* or *Schicht*.

Lay, in Construction, as to lay the bricks, is to place or set the bricks. *Der.* From the Old English *ligan*, to lie, to place or set down upon. Syn. Fr. for to lay the bricks, *Placer* (or *poser*) *les briques*—pron. plah-say, po-zay, lay breek; Ger. *Ziegeln legen*.

Laying, in Plastering. The first coat in two-coat work is so called, the surface being roughened or keyed by brushing it with a broom.

Laying Down, or Lay Down, in Construction. A term often used, as in the laying of a foundation, synonymous with "setting out" or establishing of the foundation. Syn. Fr. for to lay the foundation, *Etablir* or *Poser le fondement*—pron. eh-tabb-leer or poh-zay le(u) fohnd-mahn; Ger. *Grund legen*—pron. groond lay-genn.

Lavatory, in Domestic Architecture. That apartment in a house, generally of small dimensions, in which conveniences for washing are placed. It is often combined with the water-closet, an arrangement by no means good in a sanitary sense, and by no means agreeable in its associations. The two apartments may be placed contiguous to each other, but should be essentially distinct. *Der.* From the Latin *lavatorium*, and this from *lavo*, I wash (our word *lave* comes from this). Syn. Fr. *Lavatoire*—pron. lah-vah-twahr; Ger. *Waschzimmer*—pron. vash-tsim-merr.

Lead. One of the metals used in *Construction*, as for the lining of cisterns, gutters, and the flashing (see *Flashing*) of chimney-stalks, eaves, etc. *Der.* The term

is Old English both in meaning and in spelling. Syn. Fr. *Plomb*—pron. plohn, and this from the Latin *plumbum*; Ger. *Blei*—pron. bly.

Lead Covering, in Construction, as the covering of a terrace or flat, as the flat of a pavilion roof. It is synonymous with "lead lining" in the case of covering the interior of a hollow vessel, as a cistern. Syn. Fr. for lead covering, *Couverture en plomb*; also *Toiture* (roofing)—pron. koooh-vairr-tuhr (or twah-tuhr) ahn plohn; Ger. *Bleidach*—literally "covering with lead" or "lead decking"—pron. bly-dach.

Leaf, in Joinery. The flat part forming one half of the door and which is hinged to the other part; or one of the hinged parts of window shutters. Der. The term is Old English, meaning the leaf of a book, as also the single leaf of a tree. Syn. Fr. for the leaf of a folding door, *Vantail* (or *Manteau de porte*; also *Feuille* (a leaf), or *Porte battante*—pron. vahn-tahill, mahn-toe, feu-eel deh porrt or porrt bah-tahn; Ger. *Thürflügel*—literally "door wing"—pron. tuer-flueg-ell.

Leaning Against, in Architecture or Building. A term used in cases where one part slopes or inclines toward another, as a buttress against a wall. Der. From the Old English *hlinian*, to rest upon, or to be from the vertical. Syn. Fr. *Adossement*—literally "a backing"—pron. ah-doss-mahn; Ger. *Böschung* (from *bösch*, to slope or incline)—pron. boeh-shoong.

Ledge, in Construction. A projecting, generally a flat or level, part. Der. From the Old English word *leger*, to lie, and was applied to a shelf or a projecting part. Syn. Fr. *Tringle* or *Mouquette*—pron. traihng-gull, moo-shett; Ger. *Tragleiste*—pron. trahg-lie-steh.

Ledgers, in Bricksetting. The horizontal poles or pieces of round timber used to support the outer ends of the small beams called putlogs (see Putlog), the inner ends of which are carried by the brickwork, and which carry the planks or boards forming the platform of the scaffolding on which the bricklayers stand when building brick walls. The ledgers are lashed by, or connected to, the upright poles of the scaffolding by ropes.

Lengthening of Timbers, in Carpentry. Synonymous with scarfing. When timbers are required of a greater length than that of any of the single pieces at command of the workman, two or more of the shorter pieces are joined together by the joint known as the scarf (which see), of which there are many varieties. Der. The term "length" is from the Old English *lengdh*, and this from *leng*, length. Syn. Fr. *Bois en bout*; also *Rallongement*—literally "wood (or timber) on end," and "lengthening" (from *rallonger*, to lengthen)—pron. bwah ahn

boo, rah-lonjh-mahn; Ger. *Holzverlängerung*—literally "wood lengthening"—pron. hollts-ferr-leng-airr-roong.

Level. Generally this term indicates, as applied to a surface, that it is parallel to or in a line with the horizon. The term also is used to denote a smooth and flat—that is, as popularly described, a level surface. In this wider sense it may indicate a surface which may be on the slope or inclined—that is, oblique to the line of the horizon—as well as one truly level—that is, parallel with it. Der. Either from the Old English *loefel*, level or flat, or from *libella*, a diminutive of the Latin word *libra*, a balance: when it is balanced, so that one end does not preponderate over the other, it is parallel to the horizon or level—hence the derivation. Syn. Fr. for the general term, *Niveau*—pron. nee-voh (from *niveler* [nee-veh-lay], to level); Ger. *Horizont*—pron. horr-ee-tzonnt. Syn. Fr. for "true level," *Niveau vrai*—pron. vray (true); Ger. *wahrer Horizont* (from *wahr* [vahr], true). This last term is synonymous with "dead level." For making a surface or body dead level, Syn. Fr. *Établir un niveau vrai*; Ger. *wahre Horizontmachung*. "To level" or "bring to the level" by planing, as in wood, or by dressing or cutting with the tool, as in masonry work, Syn. Fr. *Niveler*, *Aplanir*, or *Mettre de niveau*; Ger. *Behauen*, *zurichten*, or *beschneiden*—pron. beh-how-en, tsoo-rich-ten, beh-shny-den. "Levelling" is the act of making level: Syn. Fr. *Nivellement*—pron. nee-vell-mahn; Ger. *Gleichmachung* (from *gleich*, to level, to make smooth)—pron. glych-mach-oong, also *Nivel-ling*.

Lever, in Tools. A long bar or rod of iron, or a long batten or piece of timber, used to raise heavy bodies. In masonry the lever is of iron, and sharp-edged at the end, so that it can be inserted beneath the stone to be prised or eased up. Der. Indirectly from the French *levier*, a lever, and this from *lever*, to lift, which is precisely our word. It is also derived from the Latin *levare*, to lift. Syn. Fr. *Levier*—pron. lev-vee-ay; Ger. *Hebel* or *Hebebaum* (from *heben*, to lift)—pron. hay-bel, hay-beh-bowm,

Lewis, in Masonry. An appliance or mechanical contrivance by which heavy blocks of stone are taken hold of by the lifting hook and chain of the crab or crane (which see) and lifted and transported from one place to another. The "lewis" is inserted in an aperture cut in the upper surface of the block, near its centre or balancing point, and is so constructed that the greater the weight the tighter it takes a grasp of the stone. The hole or aperture is what is called a dovetail in form, the widest end being at the bottom, the narrowest at the surface. To get the "lewis"—which, as a whole, is also of the same dovetail form, but a little less in

size—into the aperture in the stone, it has of necessity to be made of three parts of wrought iron. The two side-parts have their outer edges sloping at the same angle as the dovetail hole in the stone, their inner edges being flat and vertical; their upper ends, which project some distance above the surface of the stone, are provided with bolt holes. Those two pieces or wings are first placed in the dovetailed hole in the stone close up to its sides, and their thickness is such that when so placed a space is left between their inner edges. Into this space a flat-faced piece of iron, with its edges of the angle of the dovetailed hole in the stone, is inserted. The upper part of this is provided with a bolt-hole at the same level as the bolt-holes in the side-pieces or wings, and above this an eye is made through which a ring is passed, and through this ring the hook of the crane chain is passed. When the three pieces are placed as above described a strong bolt is passed through their bolt-holes, and the bolt is secured in this position by a split key (which see). The reader will thus perceive that, so placed in the aperture in the stone and connected together, the three pieces form in effect a solid piece of the same form as the dovetailed hole; and therefore the greater the pull on the ring, or the heavier the stone, the more firmly does the dovetail of the "lewis" resist being pulled out. Syn. Fr. *Crampion*, a quoin—literally "a wedge cramp"—pron. krahm-peo-onn; Ger. *Zwingkeil zum Steinheben*—literally "the stone lifting forcing wedge" (*Keil*, a wedge, *zwingen*, to force, and *heben*, to lift)—pron. tsving-kile, stine-hay-benn.

Library, in Domestic Architecture. The apartment in a house devoted to the reception of books and conveniences for reading and writing; it is often used as synonymous with "study," a room set apart for quiet reading. Syn. Fr. *Cabinet de lecture*; Ger. *Bibliothek*; there is also the word *Leihbibliothek*—pron. lie-bib-lee-oh-take: this, however, is only a shop or lending library (from *leihen*, to lend).

Lift, in Domestic Architecture. The apparatus used in houses, warehouses, and hotels, by which the materials, such as cooked foods, dishes, etc., are raised from the kitchen in the low to the dining or other rooms on the high level. Used also to indicate the apparatus for taking people, luggage, etc., from the hall to the various floors of a house, as in hotels (see *Hoist*). Der. From the Old English *lifan* or *hlifan*, to be high, or from the Latin *levis*, light. Syn. Fr. *Elevateur*—pron. eh-lay-vah-teur; Ger. *Aufzug*—pron. owff-tsoog.

Light. A term used in *Building* to indicate the void or aperture, as that of a window, by which daylight is admitted to the interior of an apartment or enclosed place. Hence

the terms a "two-light" or a "three-light" window—a two-light window having a solid part of the wall or a pier between the two openings; a three-light having two solid piers between the openings (see *Venetian Window*). Der. From the Old English *liht*, that which shines or is clear, or from the Latin *lux*. Syn. Fr. *Jour d'une fenêtre*—pron. jhoor duehn fay-nay-turr; also *Bai*—pron. bay—from this our word bay (which see); Ger. *Fensteröffnung*—literally "window opening" or void space—pron. fenn-sterr-oeff-noong.

Lime, in Building. The material used in the making of mortar, rough plaster, etc., obtained by the calcination and the slaking or slacking (which see) of the mineral or rock called limestone. Der. From the Old English *lim*, or the Latin *limus*. Syn. Fr. *Chaux*—pron. show; Ger. *Kalk*—pron. kahlk.

Lime, Hydraulic. A lime which sets hard in water. Syn. Fr. *Chaux hydraulique*—pron. show hee-droll-eek; Ger. *Hydraulischer Kalk*—pron. he-drowl-ish-err kahlk; also *Wassermörtel*—literally "water mortar"—that is, mortar which will retain its property in water—pron. vass-err-moerr-tell.

Lime Kiln. A furnace in which lime is calcined (see *Kiln*). Syn. Fr. *Four à chaux*—literally "lime furnace"—pron. foohr ah show; Ger. *Kalkofen*—literally "lime oven"; also *Kalkbrennerei*—literally "lime burnery" (from *brennen*, to burn).

Lime Pit, in Building. A deep hole or excavation made in the ground, in which the lime to be used in the making of mortar, etc., is slaked or slacked, from which the mortar is made. Syn. Fr. *Fosse à chaux*—pron. foss ah show; also *Bassin* (our word basin comes from this) *à chaux* or *Bassin à mortier*—pron. bah-sainn ah show or mohr-teey; Ger. *Kalkgrube* (*Grube*, a pit, an excavated or dug-out place)—pron. kahlk-grew-beh.

Limestone. The form in which the mineral is quarried from the rock. Syn. Fr. *Pierre à chaux*—pron. peeair ah show, or *Roche calcaire*—literally "calcareous rock"—pron. rosh call-kair; Ger. *Kalkstein*—pron. kahlk-stine (a stone).

Lime Tree, in Timber. Otherwise known as the linden. Syn. Fr. *Tilleul*—pron. teel-youl; Ger. *Lindenholz*.

Lime-wash, in Building. A mixture of slaked lime and water used to paint or cover rough walls, or as a cheap paint, also as a disinfectant. Syn. Fr. *Lait de chaux*—literally "lime milk"—pron. lay deuh show; also *Echauldage*—pron. eh-show-dahj; Ger. *Kalkmilch*—literally "lime milk"—pron. kahlk-milch; also *Kalkweisse*—literally "lime white"—pron. kahlk-vice-eh.

Line, To (with the chalk cord). In *Construction* a straight line is marked on a surface very rapidly by holding somewhat tightly between two points a cord well

rubbed over with chalk. By lifting the stretched cord some distance from the surface and letting it go or slip from the hand, in springing back, by virtue of its elasticity, it strikes the surface and frees a quantity of the loose chalk from its fibres, which thus gives a straight line marked out in white between the two points at which the cord was fixed or held. Syn. Fr. *Marquer avec la chaux corde*—pron. marr-kay ah-veck lah show korrd; Ger. *Leinemachen mit Kalk-schnur* or *Kreideschnur* (Kreide, drawing chalk), or *Abkreideschnur*—pron. abb-kride-eh-shnoor.

Line, To lay out a, as in setting out the plan of a house on the ground or space on which it is to be built. Der. The word "line" is from the Latin *linea*, a linen thread or string; "lineal"—that is, measured or measurable by straight lines—is derived from *linealis*, and this from *linea*. Syn. Fr. *Ligne*—pron. leeng; Ger. *Leine*—pron. line-eh. To lay or set out a line is in French *Aligner*—pron. ah-leang-ni-ay; Ger. *Eine Leine tragen*—pron. ine line-eh trah-genn.

Linen Closet or Room, in Domestic Architecture. That apartment in a house in which the linen required for family use is stored or kept in cupboards or on shelves and in drawers to be ready to hand. In large establishments the term "room" is more applicable to this great convenience in a house; and it is not only fitted completely up for storage, but is specially heated by hot-water pipes, or otherwise, so as to maintain the temperature sufficiently high to keep off damp from the linen and have it always well aired for immediate use. In smaller establishments it is literally a closet (which see), with no special conveniences save drawers or shelves and hanging hooks; where there is a bath heating apparatus in connection with the kitchen range (which see), advantage is, in well designed and carefully planned houses, taken of the hot-water pipes, so that passing through or near the closet the air may be kept warm. The closet may also be so arranged that the kitchen chimney flue may pass through it, forming one of its walls; this will keep the interior air sufficiently well warmed. The term "napery" is often used in place of linen required by families (see Napery Room). Der. The term linen is from the Old English *lin*, or from the Latin *linum*, both signifying flax, this being the vegetable fibre from which linen is made. Syn. Fr. for linen closet or room, *la Lingerie*—pron. lah lai-nj-ur-ree; Ger. *die Linnen-kammer*; also der *Wäschschrank* (*Wäsche*, linen clothes, from *waschen*, to wash, and *Schrank*, a cupboard or closet)—pron. vesh-eh-shrahnnk.

Lining, in Carpentry, Joinery, and Masonry. A term synonymous with casing, as the

inside lining of a window, an inside lining wall, lining of an embankment or a reservoir. Syn. Fr. for lining, *Doublure*—pron. dooh-bloohr (from *doubler* [doo-blay], to double, to line, to sheathe); also *Revêtement*—pron. reh-vaitt-mahn—literally "a clothing" (from *revêtir* [reh-vay-teer], to clothe, put on); also *Renfort*—literally "a reinforcement," in the sense of strengthening or completing—pron. rahn-fore; Ger. *Bekleidung*—pron. beh-klide-oong (*Kleidung*, clothing, and this from *kleiden*, to clothe); also *Fütterung* or *Ausfütterung* (from *Futter*, a lining)—pron. ouss-fuet-err-oong. Syn. Fr. *Doublure de volige* (*volige*, a thin board)—pron. voh-leehj; also *Doublure en planches* (*planche*, a plank)—pron. plahnsh; Ger. *Brettkleidung* (*Brett*, a board); also *Diellkleidung* (*Diele* [dee-leh], a plank). Syn. Fr. for a wall lining, *Mur de revêtement* (see above); Ger. *Futtermauer* (see above).

Link (of a lifting chain). The single member of a chain is so called—a chain being made up of a number of links, any one link being enclosed or connected with two contiguous links. Links may be circular in form, or literally "rings," but generally they may be described as rectangles with semi-circular or rounded ends—the sides parallel, ends rounded; sometimes they are made elliptical in form or plan. Chain links are made of the best wrought iron, rod or round bar. Der. From the German *Gelenk*, and this from *lenken*, to bend. Syn. Fr. *Chainon*—pron. shay-nohn (from *chaîne*, a chain); also *Membre d'un chaîne*—pron. mahm-berr duhn shain; Ger. *Gelenk*—pron. geh-lenk.

Lintel, in Building. The timber beam or stone which is placed at the top and stretches across the void of a door or window opening, and which carries or supports the brickwork or masonry above. When the opening or void in the wall is wide, as in that required for a bay or bow window, a large beam is required, and to this is given the name of Bressummer or Brestsummer (which see). Der. The term "lintel" is from the French *linteau*, and this from the Latin *limen*, a threshold. Syn. Fr. *Linteau*—pron. lai-nh-toe; also *Poutre de dessus*—literally "an over" or "above beam"—pron. pooh-terr deh day-suuh; also *de croisée*—pron. deh krwah-zay; Ger. *Oberbalken*—literally "over" or "above beam"—pron. oh-berr-ball-kenn.

Listel, in Architecture. A term synonymous with fillet (which see) or a small band. Der. From the Latin *licium*, a thread or rope, as the listel sometimes takes the form of a round fillet or band. Syn. Fr. *Listel*—pron. leece-tell; also *Bandelette*—pron. bahn-deh-lett; also *Filet carré*—literally "a square fillet"—pron. fee-lay karr-eh; Ger. *Bändchen*; also *Leistchen*—pron. bend-chenn, licet-chenn.

Load (of a beam). A term synonymous

with "charge," as indicating the weight which a beam has to carry or support, or the pressure which it has to resist. *Der.* From the Old English *hladen*, or the German *laden*, to place a weight or a burden upon. *Syn.* *Fr. Charge*—pron. sharjh (from *charger* [sharr-jay], to load); *Ger. Ladung*—pron. lah-doong (from *laden* [lah-denn], to load).

Loam, in Soils. A species of earth or soil of a character between a heavy and a light soil, a clayey and a sandy—as a clayey loam, a sandy loam. Considered from a gardening or an agricultural point of view, it is the most highly esteemed, as it is not only easily worked, being generally friable—more or less—but is fertile. Considered as a soil for excavating for foundation trenches, etc., it is an easily worked soil, and where met with it should be laid aside for addition to the garden soil of the house. Loam is often taken as synonymous with clay—a loam pit or a clay pit—but there is an obvious difference between the two. *Syn.* *Fr. Limon*—pron. lee-mongh; also *Terrain limoneux*—pron. terr-ann lee-monn-euh; *Ger. Lehm*—pron. lame.

Lobby, in Domestic Architecture. That part of a house to which entrance is obtained immediately from the street or road or principal door, and from which access is had to the various apartments. It corresponds with the hall or vestibule in larger houses—the term being applied to domestic buildings of a humble or middle-class description. The staircase is almost invariably placed in the lobby at one side. *Der.* From the debased Latin word *lobia* or *lobium*, a covered place, like an arbour. For equivalents in French and German see Hall.

Lock, in Ironmongery. The appliance or mechanical contrivance by which a door or gate is fastened or secured, and which cannot be opened without turning the lock mechanism with the key. *Der.* From the Old English *loc*, from *locan*, to enclose, to fasten up. *Syn.* *Fr. Serrure*—pron. sair-reuhr (from *serrer* [serr-eh], to close, to fasten); *Ger. Schloss*—pron. shloss. Locks are of various kinds. The highest class of lock, or that used for the doors of superior, well-fitted houses, is known as a *Mortise Lock*. It is so called from the fact that it is concealed within the thickness of the wooden door style and lock rail of a door (see Door), the only parts visible being the handles, one on each side of the door, the keyhole generally covered with the escutcheon (which see). A mortise or hole is cut out in the style and the lock rail to receive the lock. *Syn.* *Fr. Serrure à mortaise*—pron. sair-reuhr ah more-teze; also *Serrure à fourreau*—pron. sair-reuhr ah fooh-oh (from *fourrer* [fooh-eh], to thrust in or pass into—the mortise); *Ger. Einsteckeschloss*—literally "a lock covered" or "sheathed" (from *einstecken*, to cover, to

sheathe)—pron. ine-stek keh-shloss; also *Taschenschloss*—literally "a pocket lock" (from *Tasche* [tash-eh]—that is, a concealed or hidden lock. A lock of a more common kind, as for kitchen and closet doors or the like, is that which is screwed on to the outside of the door style, either on the side of door next the room, or outside or passage side. In the former case only the handle and the keyhole are visible in the interior of the room. This kind of lock is generally termed a *Rim Lock*, or more simply "outside lock." *Syn.* *Fr.* for the latter term *Serrure à bosse*—literally "a projecting lock"—i.e. standing out from face of door (from *bosse*, a hump, a projecting part)—pron. sair-reuhr ah boss; *Ger. Kellerschloss*, a cellar lock—that is, a lock for common doors. A *Double Lock* is a lock the key of which is turned twice, giving with two bolts a greater security to the door. Double locks are now used rarely as compared with former days. Readers of novels issued some forty or fifty years ago will remember the phrase "locked and double-locked the door." *Syn.* *Fr. Serrure à deux tours*—pron. sair-reuhr ah deuh toor, or *Serrure à double tour*—pron. sair-reuhr ah doo-bell toor; *Ger. Doppelschliessendes Schloss*—literally "a double locking lock" (*Doppel* from *doppeln*, to double, and *Schloss* from *schliessen*, to lock)—pron. dop-pel-shleece-en-dess shloss.

Lock Furniture, in Ironmongery. The various parts connected with the lock of a door are so called. In well fitted apartments the furniture comprises the lock, its handles, the escutcheon or cover for keyhole, and what are called finger plates, those being attached to the lock style of the door both above and below the handle. Those finger plates are of enamelled ware, plain or ornamented, and they are designed to prevent the door style from being soiled with finger marks. *Syn.* *Fr. Garniture de serrure*—pron. garr-nee-tuehr deh sair-reuhr; *Ger. Schlossbedecke*—pron. shloss-bay-dek-keh.

Lock Rail, in Joinery. The central or middle horizontal rail of a door frame, which divides the panels and connects the side styles of the door frame together. This middle rail is so called, as it is placed at the height at which the lock is fixed, and in doors with narrow lock styles the mortise of a mortise lock may partly be made in the lock rail. *Syn.* *Fr. Traverse moyenne d'une porte*—literally "the middle cross-piece of a door"—pron. trah-vairree moy-enn duehn porrt; *Ger. das mittlere Stück einer Thür*—literally "the middle piece of a door"—pron. mit-lairr-eh stueck ine-er tuer.

Locksmith. A maker and repairer of locks. *Syn.* *Fr. Serrurier*—pron. sair-reu-ree-eh; *Ger. Schlosser*—pron. shloss-err.

Lock Style, in Joinery. The vertical side-piece of a door frame to which the lock is

secured. Syn. Fr. *Montant intérieur d'une porte*—pron. monn-tann.

Loft, in Building. A term generally applied to the apartment—usually left in a more or less unfinished state—placed in the roof or at the highest part of a building. In church architecture it signifies a chamber placed or raised upon another and lower such, as the singing loft, organ loft, etc. *Der.* The term is evidently an abbreviation of the word *lofty* or high. Syn. Fr. *Toit des planches*—pron. twah day plahnsh.

Log (of wood or timber) synonymous with *Balk* (which see). A piece of timber of large section, from fourteen to eighteen inches square on the side, determined by the diameter of the tree out of which it is cut. The sides or outer surface are in the rough, just as they leave the “lumber” mill or saw mill in the forests in which the trees have been felled. The length of logs varies, this being determined by the height of the tree or length of that part of its bole which will give a log or balk of uniform section throughout its whole length, as logs do not taper as the boles or trunks of trees do, one end being of the same section as the other. *Der.* From the Old English word *log*, which means heavy, also *dull*, heavy piece of timber. Syn. Fr. *Bûche*—pron. bush (from *bucher* [bueh-shay], to rough-hew—that is, wood not dressed but in the rough); also *Bille* (our word “billet” comes from this); also *Bloc*; Ger. *Holzklotz* (*Klotz*, a block, a log)—literally “a wood block”—pron. holts-klotts.

Lombardic Style, in Architecture. So called from its introduction by the Lombards, about the seventh century. It is essentially a debased Roman style; yet, notwithstanding its rudeness and its massive and heavy characteristics, it possesses many points worthy of study. The style known as Venetian has many of the Lombardic features, but finely and gracefully developed. Some writers maintain it to be the style on which that known as Norman was based; but there are many features which are not to be found in the Norman. Other authorities seem to think it more nearly allied to the Early German.

Longs and Shorts, in Masonry. Applied where long pieces or blocks of stone, as at the quoins (which see) or corners of a building, alternate with short pieces. In the running or straight part longs and shorts are equivalent to headers and stretchers (which see). Syn. Fr. *d'Encoche*—pron. dahn-kosh (from *encoche* [ahn-koh-shay], to notch—i.e. the alternate placing of long and short pieces vertically disposed, as in quoins, gives an appearance like notching. The more accurate because more definite synonym is *Chaine d'encoinure*—literally “the chain of the corner” or “quoin” of a

building—pron. shain dahn-kwang-yure; Ger. *Eckverband aus Quadern*—pron. eck-ferr-band ouss quah-dern—literally “the corner dressing out of the square or free-stone”; as applied to headers and stretchers the term would be *Längestein und Engestein*.

Louvre, in Domestic Architecture. In early times, before chimneys were invented or used, the smoke from the burning fuel on the hearth in the hall was allowed to escape by holes made in the roof. The apertures were concealed or made to form an ornamental part of the roof by being arranged on the side of a little projecting turret-like structure with a sloping top or roof. This form is still retained in buildings in certain styles—in some cases acting as a ventilator, in others as a mere ornamental feature. *Der.* From the French *louvé* (loo-vay), a hole in a stone. Syn. Fr. *Tourelle*—pron. too-rell, a little tower; also *Fumarelle* (from the verb *fumer*, to smoke, this term having reference to the original use of the contrivance); Ger. *Dachthürmchen*—literally “a roof turret”—pron. dach-tuerm-chen; also, and with reference to the original use of the structure, *Rauchloch*—literally “smoke hole” (from *rauchen*, to smoke, and *Loch*, a hole—from *lochen*, to perforate).

Louvre Boards. The sides of *louvres* or ventilating turrets are generally filled in with narrow boards, placed at an angle one above the other, filling in the space and leaving void spaces between, with sloping surfaces, allowing the air to pass out. The angular surfaces of the boards facilitate the passing out of the air; as when there is a breeze or wind blowing, the air is deflected over the sloping surfaces as it is blown in on one side and passing over to the opposite set of void spaces is blown out. The current thus created across the *louvre* or turret increases the draught up the turret, and also up the ventilating shaft which it crowns. Syn. Fr. *Louvre vénétienne*, or Venetian *louvre*, from its resemblance to Venetian blinds. Another term for *louvre* boards is “luffer boards,” *luffer* being merely a corruption or popular pronunciation of *louvre*.

L-Iron or L-shaped Iron, in Construction. Wrought-iron bars with a section like the letter *L*, otherwise and more generally known as *Angle-iron* (which see). Syn. Fr. *Fer en barres, façonné en L forme*, “iron bars fashioned *L* shape”; Ger. *L-Eisen*.

Lozenge-shaped, in Glazing. Window panes are so called which are cut out of a diamond shape, or more correctly of the form of a rhomboid with the points placed vertically. The derivation of the term is obscure: some authorities maintain that it is derived from a Greek and a Latin word, *lozos*, oblique, and *angulus*, an angle. Syn. Fr. *Lozanges*—pron. loze-ahnj; Ger. *Fenster-*

rauten (*Raute*, a rhomboid)—pron. fenn-sterr-row-tern.

Lucarne. A French synonym for Dormer Window (which see).

Lumber, in Timber. A term chiefly used to denote timber in the rough. Syn. Fr. *Bois de construction*—pron. bwah deu conn-strueck-see-onn; Ger. *Bauholz*—pron. bough-holhts.

Lumber Room, in Domestic Architecture. A room set apart, generally in the attic—where this is in a house—for storing up odds and ends or useless pieces of furniture, etc. *Der.* From the Old English *leoma*, an utensil. Syn. Fr. *Cabinet de décharge*—pron. kah-bee-nay deu day-sharj; Ger. *Polterkammer*; also *Rumpelkammer*—pron. poll-terr-kamm-err, rum-pell-kamm-err.

Lumps, Fire. The bricks of fire-clay (which see) which are placed at the backs of fire-grates to act as non-conductors of the heat, as also radiating the heat which they absorb, thus acting as economisers of the fuel. *Der.* The term lump is from the

German *Klumpen*, which gives us our word “clump,” which is a synonym for lump. A lump means generally a mass of no given form. Syn. Fr. *Brique réfractaire pour le foyer* (see Fireplace and Fire-grate)—pron. breek reh-frakk-tare poor leu fwoy-yea; Ger. *Feuerstiegelstein*—literally “fire-grate brick”)—pron. foy-err-roost-tsee-geck-stine, or *Feurziegelstein*—literally “fire-brick.”

Lunette, in Building and Architecture. The upper part of a vault or aperture which gives light to the interior. Syn. Fr. *Lunette de voûte*—pron. lueh-nett deh voot; Ger. *Gewölblichtloch*—literally “the arch light-hole”—pron. geh-voell-beh-licht-loch.

Lustre, Gas. A synonym for gasalier or gas chandelier (which see). *Der.* The term is purely French—*lustre*, gloss or shining (from *lustrer* [lueh-stray], to shine, to be glossy, and this from the Latin *lustrare*, to shine).

Lying Panel, in Joinery. A panel in which the grain of the wood is placed horizontally.

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Macadamising, in Roadmaking. A method of making roads and finishing the surfaces, invented or introduced by a Scotch road engineer of the name of MacAdam—hence the term. The principal feature of the system of MacAdam is the employment of small stones of granite or trap, of size sufficient to pass through a ring some two inches in diameter. These are laid upon the prepared surface of road, and in process of time the upper layer gets, by the continued traffic, quite smooth and level. What is called the “bottoming” or foundation of the road is carefully made, and much in the same way and with the same material as the top or finished surface. The use of a ponderous roller, worked by and forming itself part of the mechanism of a steam traction or road roller engine, has greatly facilitated the construction and increased the economical efficiency of macadamised roads. Syn. Fr. *Paver à la Macadam*; Ger. *Macadamisiren*—pron. mak-ah-dahm-ee-zee-ronn.

Mahogany, in Timber. One of the best known and most widely used of our ornamental timbers in furniture making and in the interior fittings of buildings. There are two kinds of it—the Spanish and Honduras—the one dark, the other light in the grain. There is a species of mahogany known as baywood, which has somewhat the appearance of the true wood but few of its high qualities. Syn. Fr. *Acajou*—pron. ah-kah-joo. When used specially for furniture making the term is *Acajou à meubles*; Ger. *Mahagoniholz*—pron. mah-hah-go-nee-holhts; also *Acajouholz*. When mahogany is used

for veneering (see Veneers) the term in French is *Feuilles d'acajou* or *Placages d'acajou*; Ger. *Mahagonifurnire*.

Main Wall—Main Timber, in Construction, in the sense of principal or chief. *Der.* From the Old English *magan*, strength, or to be strong or able. Syn. Fr. for “main wall,” *Chef mur*—pron. sheff muehr; Ger. *Hauptmauer*—pron. howpt-mow-err (*ow* as in *cow*); for “main beam” or “timber,” *Chefpoutre* or *Poutre principale*—pron. shef poo-terr; Ger. *Hauptbalken*—pron. howpt-ball-ken.

Mallet, in Tools. A species of hammer, but of which the head as well as the handle is wood. The mason's mallet is the best known form of this tool. It is the frustum of a cone—that is, a cone with the tapered part cut off, leaving a flat circular upper surface in the centre of which is the handle, which is circular and short. *Der.* From, or is but a corruption of, the French term *maillet*, and this from the Latin *malleus*, a wooden hammer. Syn. Fr. *Maillet*—pron. mah-eel-yea; Ger. *Schlägel* (from *schlagen*, to beat)—pron. shlay-gell; also *Holzklöpfer*, a wood beater (from *klopfen*, to strike or beat).

Malm Bricks. A superior kind of bricks light in colour. Syn. Fr. *Briques jaunes*; Ger. *gelbe Ziegelsteine*: the terms in both languages meaning “yellow bricks.”

Manse, in Domestic Architecture. A term known only or chiefly in Scotland, to indicate the residence of the clergyman of the parish. The English synonym is the parsonage, vicarage, or rectory. *Der.* The word manse is from the Latin *mansio*, and this from *manere*, to remain, to dwell in.

Mantel, or Mantel-piece, in House Con-

struction. The latter term is often used as synonymous with chimneypiece. The mantel proper is, however, the shelf or projecting ledge which crowns or finishes the chimneypiece or decoration surrounding the fireplace opening or grate. *Der.* The term, in the sense of a covering, is from the Old English *mentel*, or from the debased Latin *mantellus*, a covering or loose fitting garment, as a cloak. It may also be—very probably, we think, is—a corruption of the French word *manteau*, a cloak. Syn. Fr. for mantel—i.e. the upper stone or piece or shelf crowning the chimney jambs, *Linteau de cheminée*—literally “the chimney lintel”—pron. laign-toe deh sheu-mee-nay; Ger. *Sturze der Kamingewände*—pron. stoo-erts-eh derr kah-meen-geh-venn-deh—literally “the cover of the chimney jambs.” Syn. Fr. for “mantelpiece” as a synonym for chimneypiece, *Tablette* (which gives a more accurate idea of the work) *manteau de cheminée*—literally “the chimney (opening) mantle, cloak” or “covering”—pron. mahn-toe; Ger. *Schürzrauchfang*—pron. shuerts-rowch-fang—literally “the apron” or “mantle of the smoke draught” or “flue.”

Marble. One of the most valuable of our building stones; the finest of all the varieties, which are very numerous, being the Carrara marble, obtained in Italy. Marble is a limestone, and is distinguished by the hardness and closeness of its texture, and which is capable of a high polish. *Der.* From the Latin *marmor*, and this from the Greek *marmairein*, to shine or flash. Syn. Fr. *Marbre*; Ger. *Marmor*—pron. mahrr-morr.

Margin, in Slating. The parts of slates in the courses not covered by the slates above them—that is, the part of a lower course exposed to the weather and not covered by the upper course. Syn. Fr. *Partie d'une ardoise exposée*—pron. par-tee doohn arr-dwahze ex-poh-zay; Ger. *freiliegender Theil des Schiefers*—literally “the free-lying part of a slate”—pron. fry-lee-genn-derr tile dess shee-ferrs.

Margin or Margent, in Joinery. The flat part at the edge of rails or door-styles. *Der.* From the Latin *marginus*, a border or edge. Syn. Fr. *Bord*—pron. bor; Ger. *Rand*.

Market. An open or covered-in place set apart for the sale generally of food and provisions of various kinds. *Der.* From the German *Markt*, or the Latin *mercatus*, and this from *mercari*, to sell, to trade. Syn. Fr. *Marché*; Ger. *Markt*. For “market-place,” Syn. Fr. *Place du marché*—pron. plahss deuh marr-shay; Ger. *Marktplatz*—pron. markt-platts.

Mark out a Site, in Building. This is generally done by first setting out the lines of the walls and indicating their position by

driving in wooden stakes at different points. *Der.* The term mark is from the Old English *mearc*, or from the French *marque*, and this from the Latin *meare*, to go through, to search out. Syn. Fr. for mark out a site by stakes, *Marquer avec les pieux à pointes* (*pieu*, a stake or a pile); Ger. *Ortpflocken*—literally “place marking with pegs” or “stakes” (*Ort*, a place, and *Pflock*, a peg or stake).

Mark out Lines, as of a building site. Syn. Fr. *Aligner* (*ligne*, a line)—pron. ah-leang-yea, or *Aligner le terrain*; Ger. *Gerade Linien abstecken*—literally “right line” or “rectilinear line pricking” or “marking out”—pron. geh-rah-deh lee-nee-en ap-steck-enn.

Marl, in Materials. A species of clayey earth composed of clay, sand, and carbonate of lime. *Der.* From the Old French *marle*. Syn. Fr. *Marne*; Ger. *Mergel*—pron. mairrgell.

Marquetry, in Cabinet Making. Inlaid work in which the patterns are made up of small pieces of wood of different colours. *Der.* From the French *marqueter*, to spot, speckle, chequer, or inlay. Syn. Fr. *Marqueterie*—pron. marr-kett-ree; Ger. *Einlegen*—literally “inlaying”—pron. ine-lay-genn.

Masonry. The art of constructing buildings in stone. *Der.* From the French *maçon*, a builder in stone, and this probably from the Latin *maceria*, wall. Syn. Fr. *Maçonnerie*—pron. mah-son-ner-ree (sometimes the phrase used is *Ouvrage des pierres*—literally “work in stones”); Ger. *Mauerei*—pron. mow-err-i; also *Mauerwerk*—literally “wall work.” The Fr. syn. for *Mason*, the workman who builds in stone, is *Maçon*—pron. mah-sonn; Ger. *Maurer*—pron. mow-rerr (*ow* as in *cow*).

Master (as a “master builder” or “master carpenter”). A term synonymous with “employer,” as employer of builders, etc. *Der.* From, or rather is a corruption of, the French *maître*, and this from the Latin *magister*, a master. Syn. Fr. *Maitre*—pron. may-terr; Ger. *Meister*—pron. mice-terr.

Mastic. A species of cement of a strong adhesive character, much used in the arts. It is a vegetable gum obtained from a small shrub which grows freely upon the shores of the Mediterranean. The word has a curious derivation, being from the Latin *mastiche*, and this from the Greek *masasthai*, to chew, the gum being largely used by Eastern people for chewing, as one does tobacco. Our term is the same as the French in spelling—pron. mah-steek; Eng. pron. mas-tick; Ger. (the same word) *der Mastic*—pron. mah-stik.

Materials, in Construction, indicates the “stuff” (a synonym sometimes employed) used in the work, for instance, if the builder, as stone and mortar; if the carpenter, as timber, etc. *Der.* From the Latin *materialis*, and this from *materia*, matter. Syn. Fr. *Matériaux*—pron. mah-tairr-ee-oh, or *Matériels*; Ger. *Zubehör*—pron. tsoo-bay-heur,

meaning appurtenances; also *Materialien*. For *Raw Material*—that is, materials in their natural or original state or condition, not worked or tooled or prepared—Syn. Fr. *Matériaux* or *Matériels primitifs* (preem-teef) or *premiers* (preuhmich); Ger. *Rohmaterial*—pron. ro-mah-tair-ree-ahl—that is, rough material.

Mausoleum, in Architecture. A sepulchral monument or separate place for depositing the dead, but designed and built upon an unusually large and costly style. Mausoleums are often erected on the private grounds of wealthy or distinguished people. *Der.* From the name of a king of Caria—Mausolus—to whose memory his widow erected a monument of a costly character. Eng. pron. maw-so-lee-um. Syn. Fr. *Mausolée*—pron. moh-zo-lay; Ger. *das Mausoleum*. (See Monument.)

Measure, To, in Construction. A synonym for the phrase to take the dimensions of, as the length and breadth when it is required to find what is called “superficial or surface measure,” as the length breadth, and thickness for solid or “cubic measure.” The term “measure” means a standard or extent or proportion, and is derived from the French *mesure*, and this from the Latin *metior*, I measure. Syn. Fr. for to measure, *Mesurer*—pron. meh-zuehr-ay; Ger. *Messen*—pron. mess-en; Syn. Fr. for measure, *Mesure*—pron. meh-zuehr; Ger. *Mass*—pron. mahss.

Measurement, in Construction. A term much employed to indicate the sizes or dimensions or bulk of materials employed, or of work finished. Syn. Fr. *Mesurage*—pron. meh-zuehr-ahj; Ger. *Abmessung*. *Linear Measurement*—that is, measure of length; Syn. Fr. *Mesurage linéaire*—pron. leen-eh-airr; Ger. *Linienmass*—pron. leen-yenn-mahss. *Superficial Measure*, or measure of surfaces in square feet or inches, hence also called *Square Measure*: Syn. Fr. *Mesure de superficie*—pron. meh-zuehr deh sueh-perr-fee-see; Ger. *Flächenmass* (from *Fläche*, a plane or level)—pron. flech-enn-mahss. *Solid Measure*, generally called cubic measure: Syn. Fr. *Mesure pour les solides*—pron. so-leed; Ger. *Körpermass* (*Körper*, a body)—pron. koerr-perr-mahss.

Member, in Architecture. A term used to indicate a part of an “order,” as one of the mouldings of the base or capital of a column. *Der.* The term is directly from the French *membre*, and this from the Latin *membrum*, a part of a body. Syn. Fr. *Membre*—pron. mahm-berr; Ger. *Glied*—pron. glee; also *Stück*, a piece.

Metals, in Materials. The metals used chiefly in construction are iron, brass, copper, and lead. The term has a curious derivation—directly from *metallum*, and this from the Greek *metalón* (from *metallain*, to search after), indicating that the metals,

being obtained from ores which are usually imbedded in the earth, have to be dug or searched for. Syn. Fr. for metal, *Métal*—pron. may-tahl; for metals, *Métaux*—pron. may-toe; Ger. *Metall*.

Metope, in Architecture. The flat space between the triglyphs in the entablature of the Doric order of architecture (see Doric Order). In some ancient examples these flat spaces were left quite plain; in the Roman Doric they were filled up with sculptured ornaments, of which a commonly used one was the head of an ox, with a flower garland passed across the horns, and drooping or depending from the tips of those. In the Grecian Doric various devices were used to ornament the metopes—frequently historical subjects. *Der.* The term is from the Latin word *metopa*. Syn. Fr. *Métope*—pron. may-tope; Ger. *Zwischentie*,—pron. tsvish-enn-teef.

Mezzo Relievo, in Carved Work. A synonym for demi relievé or half relief—pron. met-so rel-lee-ay-voh.

Middle Rail, of a Door. A term synonymous with “lock rail” (which see). Syn. Fr. *Traverse moyenne*; Ger. *Mittelquerfries*—literally “the middle cross (*Quer*, a cross) frieze.”

Mitred Borders, in Joinery. Narrow strips of boarding, three to four inches in width, placed round the front and two ends of hearthstones of fireplaces, like a frame, mitred at the corners.

Mitre, in Construction. As in joinery, where two pieces are joined at right angles to each other, the line of joint between them being at an angle of 45° to each of the pieces. Syn. Fr. *Mitre*—pron. meet-err; also *Onglet* (aun-glai); Ger. *Ein halber rechter Winkel*—literally “a half right angle,” that is, of 45°. Mitres are also used to join pieces at other angles.

Mitre Joint. A joint at 45° to the pieces or members. Syn. Fr. *Assemblage à onglet* or *en biaisement*—pron. bee-ahss-mahn; Ger. *Gehrung*—pron. gair-roong.

Mitre Post, in Carpentry. A vertical post at which parts meet or to which they are joined. A king post may be so termed. Syn. Fr. *Poteau battant*—pron. poh-toe baht-tahn; Ger. *Gehrungsäule*—pron. gair-roong-zoy-leh.

Mitre Square or Bevel, in Tools and Appliances. A name given to the tool (after the term “T-square,” which is a square properly so called), and has the blade set at an angle of 45° to the stock, to facilitate the marking out of the mitre line. Syn. Fr. *Equerre à mitre*—pron. eh-kare ah mee-terr; Ger. *Winkellineal zu fünf und vierzig Grad*—pron. vin-kell-in-ay-ahl tsoo fuenf oond fear-tsich grabd.

Mitring or Mitring Angles, in Plastering. Making good the internal and external angles of mouldings.

Mix. A term chiefly used in *Masonry*, as mix or temper the mortar. *Der.* From the Old English *miscan*, to blend or mix together, or the Latin *miscere*, to mix. *Syn.* Fr. for to mix the mortar, *Mélanger le mortier*; Ger. *Mörtel bereiten*.

Modillions, in *Architecture*. An ornamental construction used in the Corinthian and Composite orders of architecture (which see), which may be described as a small bracket usually of the form of a scroll, the small end of the scroll being outwards, the larger inwards. It may be considered also as a console. *Syn.* Fr. *Modillons*—pron. moh-deel-yohn.

Modules, in *Architecture*. A measure or scale from which the proportions of the various members of an order may be taken. A "module" properly is half the diameter of the column at its base; each "module" is divided into thirty parts, called a "minute." *Der.* From the Latin *modulus*, a measure. *Syn.* Fr. *Module*; Ger. *Model*.

Monument, in *Architecture*. A structure, generally decorated, raised to perpetuate the memory of the dead, or to perpetuate the remembrance of some national or local event. Sepulchral monuments have from very early times been structures to which men have devoted much attention, and upon which they have lavished much of their wealth and decorative taste. *Der.* From the Latin *monumentum*. *Syn.* Fr. The same word as ours—pron. monn-ueh-mahn; Ger. *Grabmal*—pron. grabb-mahl—which narrows the word to a sepulchral monument. (See Mausoleum.)

Moorish Architecture. (See Saracenic.)

Mortar, in *Masonry and Bricklaying*. A mixture of slaked or slacked lime and sand and water; a very usual proportion being three of sand to one of lime. Fresh-water or inland sand should be used—never sea-sand, or, what is scarcely less inferior, a sand taken from land at one time covered by the sea. *Der.* The word is taken from the Latin *mortarium*, lime and sand cement. *Syn.* Fr. *Mortier*—pron. morr-teay. A more precise equivalent in French, as indicating the materials with which mortar is made, is *Mortier à chaux et sable*, "lime and sand mortar"—pron. morr-teay ah show eh sah-bell; Ger. *Mörtel*—pron. moerr-tell. *Mortar*, *Hydraulic*. (See Hydraulic Mortar.) A mortar which sets in water. A poor or thin mortar, in which there is too much sand: *Syn.* Fr. *Mortier maigre*—literally "a thin mortar"—pron. morr-teay may-gerr; Ger. *Mörtel mit zu viel Sand*—literally "mortar with too much sand"—pron. mit tzoo feel zant. *Strong or rich mortar* (i.e. rich in lime): *Syn.* Fr. *Mortier gras*—literally "a fat mortar"—pron. grah; Ger. *fetter Mörtel*—also literally "a fat mortar"—pron. fett-err. A quickly setting mortar is

one partly hydraulic: *Syn.* Fr. *Mortier rapide*—pron. rah-peed; also *Mortier à prise prompte*—pron. ah preeze prohmpt; Ger. *Schnell bindender Mörtel*—literally "a fast binding mortar." A slow-setting mortar: *Syn.* Fr. *Mortier à prise lente* (lahnt), slow; Ger. *Langsam bindender Mörtel*—literally "a slow binding mortar."

Mortar Mill. A machine used in large works to facilitate the mixing of the mortar. In form it is like a clay-mill for mixing the clay in brickmaking, consisting of a vertical casing or chamber in which a vertical shaft, having horizontal arms or mixers, revolves slowly, being set and kept in motion either by horse or steam power. *Syn.* Fr. *Machine* or *Moulin à mortier*; Ger. *Mörtelmühle*—pron. moerr-tell-mueh-leh.

Mortice or Mortise, in *Construction*. The aperture, slot, or hole, generally rectangular, sometimes square in plan, made in the face or surface of a piece of timber, into which the Tenon (which see) at the end of another piece is inserted and fixed by wedges or nails. The tenon is of the same length as the depth of the mortise, often termed the mortise hole. *Syn.* Fr. *Mortise*—pron. morr-teeze; Ger. *Zapfenloch* (*Zapfen* [tzapp-fenn], a lock)—literally "a tooth place," the tenon being a projecting part like a tooth; also *Fuge*—pron. fooh-geh (from *fugen*, to groove). A *Dovetail Mortise* is that in which the mortise hole is cut with sloping ends, so that it is wider at the bottom than at the top. The "tenon" is made rectangular, but has two saw-cuts made on the lower face or end. Into these wedges are placed, and when the tenon is inserted in the mortise hole and the piece driven home, the wedges force out the sides of the tenon and fill up the angular parts at ends of mortise hole. *Syn.* Fr. *Mortise à queue d'aronde*; Ger. *Taubenschwanz-zapfenloch*—literally "dovetail tooth place"—pron. tow-benn-shvants tzapp-fenn-loch. (See Dissertation for pronunciation of last syllable.)

Mosaic. Inlaid work in which hard substances, as stones of different colours, are let into surfaces, as walls, pavements, or the like. The derivation of the word is very uncertain; our word is from the French *mosaïque*—pron. moh-zah-eek; Eng. pron. mo-zay-ick; Ger. *Mosaik*. For *Mosaic Pavement*: *Syn.* Fr. *Pavé (pah-veh) de mosaïque*; Ger. *Mosaikfussboden*. For *Mosaic Work* generally: *Syn.* Fr. *Ouvrage à la mosaïque*; Ger. *Mosaikwerk*.

Moulding Plane, in *Tools*. A plane used by the joiner to form mouldings of various forms or profiles on the edge or face of timber. There are several kinds of moulding—the irons, as the steel cutting edges are called on the face or working surface of the plane itself, being arranged so as to give the desired shape to the moulding.

Syn. Fr. *Varlope onglée*; also *Mouchette*—pron. moo-shett; also *Feuilleret*; Ger. *Plattbank*.

Mouldings, in Building and Architecture.

The separate parts by which objects are ornamented or decorated, such as the projecting and recessed parts at the base or capital of a pillar or column, or similar parts placed along a flat surface, as the entablature of an order of architecture, or in a building at the architrave of a door, or the dado of a room, for all of which see terms under the distinctive letters. *Der.* From the word *mould*, the matrix in which an object is cast; as if mouldings were cast in, in place of being cut out of the solid as they generally are. The derivation of the word *mould* is from the Latin *modulus*, a measure. Mouldings are divided into two great classes—"Classical" and "Gothic." The classical are so called from being those used in connection with what are called the classical orders of architecture, Grecian and Roman. The curves or profiles of Roman mouldings are described by parts of circles. Those of the Grecian order are given by the higher curves, as the ellipse. In Gothic mouldings the distinguishing feature is the absence of set rules for finding the curves or profiles, those being always drawn by hand, and characterised by great freedom of form and position. The classical mouldings so called are numerous, as the "Bead," the "Torus," the "Ovolo," the "Ogee," the "Cyma Recta," the "Cyma Reversa" or the "Cymatium," the "Cavetto," the "Congo" or "Necking," and the "Scotia"—for descriptions of which see under those terms. For the general term moulding, Syn. Fr. *Moulures*—pron. moo-luhr; Ger. *Rand*; also *Leistenwerk*. An *Ornamented Moulding* is one the surface of which, in place of being plain, is furnished with decorative forms in relief. Syn. Fr. *Moulure ornée*; Ger. *Leistenwerk* or *Rand*.

Mountings, in Joinery, etc. A term used to indicate the parts necessary to complete a door or a window, etc. It is often used as synonymous with furniture, such as door furniture. For *Mountings of doors*, Fr. syn. *Ferrule de porte*; for *mountings of locks*, Fr. syn. *Râteau*—pron. rah-toe; for *Mountings of a window pulley*, Fr. syn. *Chape de poulie*—pron. shahp deh poo-lee.

Mud Wall. Otherwise known as adobe; also *Pisé* (see *Pisé*). A rough style of building, as for hovels for temporary use, buildings or enclosures to shelter cattle, or keep them out of fields. *Der.* The word mud is taken from the German *Moder*, wet, moist, or damp soil or earth. Syn. Fr. *Boue*—pron. booh; Ger. *Moder*; also *Koth* or *Schmutz*—pron. shmoots. Syn. Fr. for mud wall, *Mur de bousillage*—pron. muuhr-deh boo-see-leeahj; Ger. *Modermauer* or *Kothmauer*.

Mullion, in Masonry and Joinery. The vertical stone or timber member of a window dividing it into two or more sections, as in Domestic Gothic. In a French or casement window it is the middle or centre part. Syn. Fr. *Meneau*—pron. meh-noh; also *Meneau d'une croisée*—that is, "a window with a cross," referring to one form of French or casement window in which the central styles dividing the window do not go right up to top, but are intercepted by a crossbar at a height from the ceiling giving a rectangular light on top. A stone mullion is *Poteau* (post) *milieu fait en pierre*. A timber or wooden mullion is *Poteau milieu fait en bois*—literally "the middle post made in stone or wood." Syn. Ger. for mullion, *Mittelpfosten eines Fensters*.

Munton (synonym for *Mullion*). Syn. Fr. *Montant d'une fenêtre*; Ger. *Mittelstück eines Fensters*.

Muntins, in Joinery. The vertical pieces in a door frame placed centrally between the two styles—the lock style and hanging style. The panels are placed on each side of the muntins. The term is evidently a corruption of mountings.

Mutule, in Architecture. An ornament used in the Doric cornice of the entablature, corresponding in position to the modillion of the Corinthian and Composite orders (see *Modillion*). The "mutule" of the Doric is in shape rectangular with square ends. The guttæ or drops are placed on the under side of the mutule. The upper edges are decorated with a simple moulding. *Der.* From the Latin *mutulus*. Syn. Fr. *Mutule*; Ger. *Hauptbalkenkopf*—literally "the head beam cap or top."

N

Nail, in Construction. A mechanical contrivance or appliance used to secure pieces of timber together. Nails are generally made of wrought iron, sometimes of copper or brass—these latter being used chiefly for small work, and by cabinet makers. Nails are of different kinds, but are all provided with sharp points to enable them to penetrate easily the wood, into which they are driven by smart and re-

peated blows of the hammer. They may all be classed under two divisions—nails with heads, and headless nails. *Der.* The word nail is from the Old English *nægel*, or the German *Nagel*, a nail, or long, narrow, pointed piece of iron. Syn. Fr. *Clou*—pron. klooh (from *clouer* [kloo-eh], to confine, to nail); Ger. *Nagel*—pron. nah-gell (from *nageln*, to nail). For *To Nail*: Syn. Fr. *Attacher avec un clou*—pron. ah-tash-eh ah-

veek euhn kloos; Ger. *Annageln*—pron. an-ahn-geln. For *Nailed*: Syn. Fr. *Cloué*—pron. kloos-nehr; Ger. *genagelte Stelle*—literally “nailed place”—pron. gay-nah-gell-tay stell-eh. For *Nailing*: Syn. Fr. *Clouage*, also *Clouement*—pron. kloos ahj, kloos-mahn; Ger. *Nagelung*—pron. nah-gell-oong. For *Nail without a Head*—*Headless Nail*: Syn. Fr. *Clou à tête coupée*—pron. kloos ah tayte kooh-pay; Ger. *Nagel ohne Kopf*—pron. nah-gell oh-neh kopf. For *Nail with a Head*—*Headed Nail*: Syn. Fr. *Clou avec une tête*; Ger. *Nagel mit einem Kopf*. For *Small Nails*, otherwise known as *Sprigs*—short thin nails without a head: Syn. Fr. *Semence*—pron. seh-mahns; Ger. *kleiner Nagel* or *Schuhzwecke*. For *Small Nails with a Flat Head*, otherwise known as *Tacks*: Syn. Fr. *Broquette*—pron. broh-kett; Ger. *Teppichnagel*—literally “tapestry nail”—pron. teh-pick-nah-gell. For a *Clinched Nail* (see *Clinch*): Syn. Fr. *Clou rivé*—pron. kloos reeve-eh—a riveted nail; Ger. *Nagelniete* (*Niete*, a rivet)—pron. nah-gell-nee-teh; also *Nietstift* and *Nietnagel*.

Naked Flooring, in Carpentry. The rough timber work or open framing, as joists, binding joists, etc., ready to receive the flooring boards and ceiling joists to complete the floor. Syn. Fr. *Planche nue*—pron. plahnsh nuuh; Ger. *nackter Fussboden*—pron. nakk-terr fooss-boh-denn.

Natural Bed, in Masonry. Otherwise known as “Quarry bed.” A term used to indicate that the stone is laid in the course of a wall in the same position as it lay in the quarry—that is, the grain or laminæ occupy the same relative position. If in the quarry they lay flat, they are flat in the wall; if the laminæ were vertical, they will be vertical in the wall—that is, if the stones in the wall are directed in the specification to be laid on their quarry bed. A French equivalent *La pose naturelle d'une pierre*; Ger. *natürliche Lage von Stein*, or *natürlicher Grundsatz von Stein*.

Nave, in Ecclesiastical Architecture. Syn. Fr. *Nef*—pron. neff; Ger. *Kirchenschiff*—literally “the church ship,” the nave (*navis*, a ship) being so called from its resemblance to the long deck of a ship.

Neck, in Architecture (as the neck of a column or pillar). That part immediately below the capital. In the Doric column it is sometimes distinguished by a narrow rectangular channel cut all round the column. Syn. Fr. *Col*—pron. koll; also *Gorge*—pron. gorrij; also *Gorge de colonne*—literally “the throat of a column”—pron. gorrij deh koll-onn; Ger. *Säulennacken* or *Säulenkehle*—pron. zoy-len-nahk-ken, zoy-len-kay-leh.

Neck Moulding, in Architecture. The moulding at the neck of a column, where this is given to it. It is sometimes used

as a synonym simply for the neck, as above.

Nerves, in Architecture. The moulded ribs of a Gothic vault are so called. These are disposed at equal intervals round or along the vault or dome; in the case of the latter all the nerves or ribs converge from the circumference to the centre. Syn. Fr. *Nervure d'un voûte*—pron. nairr-veuhre duehn voot; Ger. *Gewölbrippe*—pron. geh-voellb-rip-peh—literally “an arch” or “vault nerve.”

Newel, in Joinery. The vertical post in dog-legged stairs (see *Stairs*), which supports the narrow ends of the “winders” (which see) or tapering steps; and the post also into which the adjoining stairing boards are framed. The term also is used to indicate the pillar or post placed at the foot or the first step of a flight of steps or stairs, and which is generally more or less ornamented. The handrail crowning, or carried by, the balusters (which see) terminates at its lowest point, and is framed into the face of newel near its upper part. Syn. Fr. *Noyau d'un escalier*—pron. noy-yoh duehn ess-kahl-yea—or simply *Noyau*; Ger. *Trep-pensaule*—pron. trep-pen-zoy-leh—literally “step pillar”; also *Spindel*, the spindle.

Niche, in Architecture. A recess in a wall, more or less ornamented externally and internally, often semicircular in plans with an arched or semi-spherical head. Syn. Fr. *Niche*—pron. neesh; Ger. *Mauernische*—literally “the wall niche”—pron. mow-err-nee-shay. When the niche has a vaulted or semi-spherical head, in French it is termed *Voûte en niche*—pron. voot ahn neesh; Ger. *Nischengewölbe*—pron. nish-enn-geh-voell-beh. Eng. pron. nitch, rhyming with rich—not nick as some pronounce it.

Nippers, in Tools. A name given sometimes—chiefly in Scotland, we believe—to the pliers or small pincers used to get hold of nails, etc., in pulling them out of their seat. Syn. Fr. *Pince à tenaille*—pron. pafinsh ah tay-nah-ill; Ger. *Doppelmäule*—pron. dop-pell-moy-leh—literally “a double jaw” or “holder”—referring here chiefly to the use to which pliers are put in doubling over in order to break wire. For pincers or holders the term is *Kneipzange*, or simply *Zange*, tongs or pincers—pron. knype-tsann-geh.

Nogging, in Bricklaying (more frequently called “Bricknogging”). A method of filling in the vacant spaces of timber partitions between the quarters with bricks. The bricks are laid generally in courses of two feet deep, lying upon pieces of timber placed horizontally and secured to the quarters of the partition, which timbers are called “nogging pieces.” Syn. Fr. for bricknogging, *Hourdée*—pron. hoorr-day; also *Cloison avec briques*—pron. klwah-zon ah-veck breek; Ger. *Ringelmauer*—literally “a ring wall.”



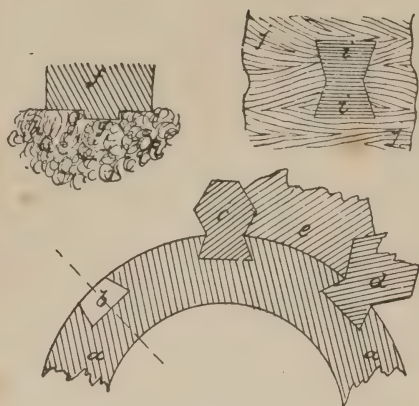


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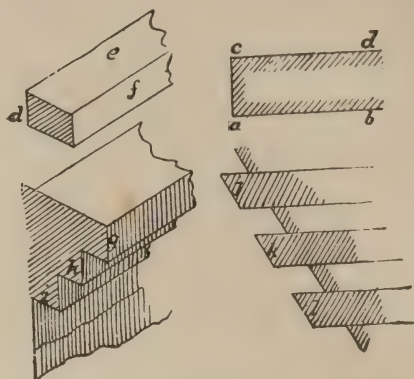


Fig. 2

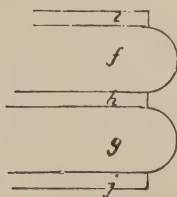
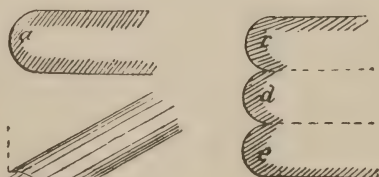


Fig. 3

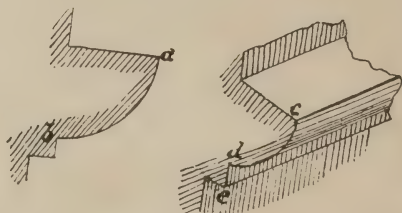


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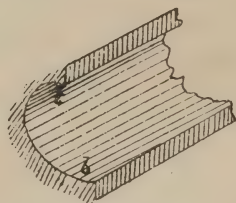


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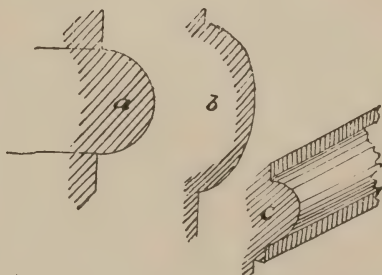


Fig. 4

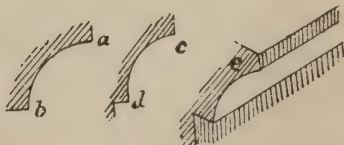


Fig. 7

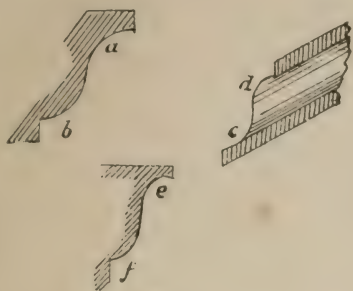


Fig. 1

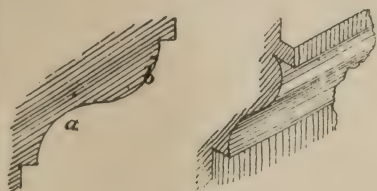


Fig. 2



Fig. 3

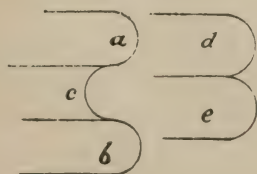


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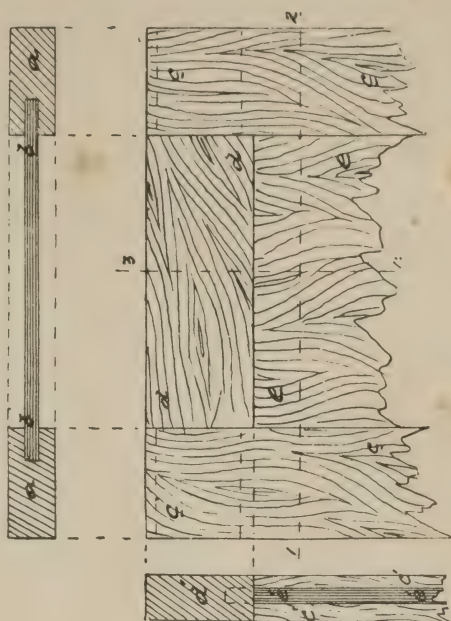


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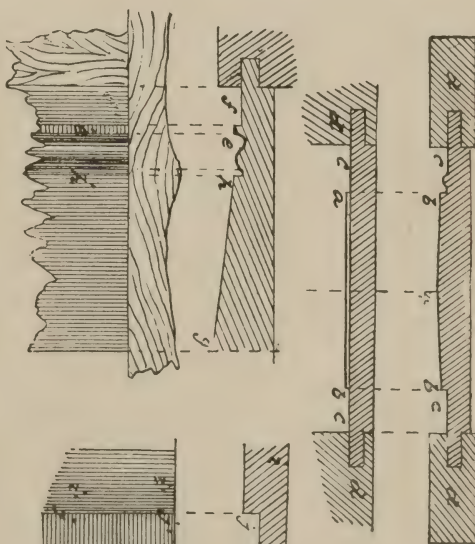
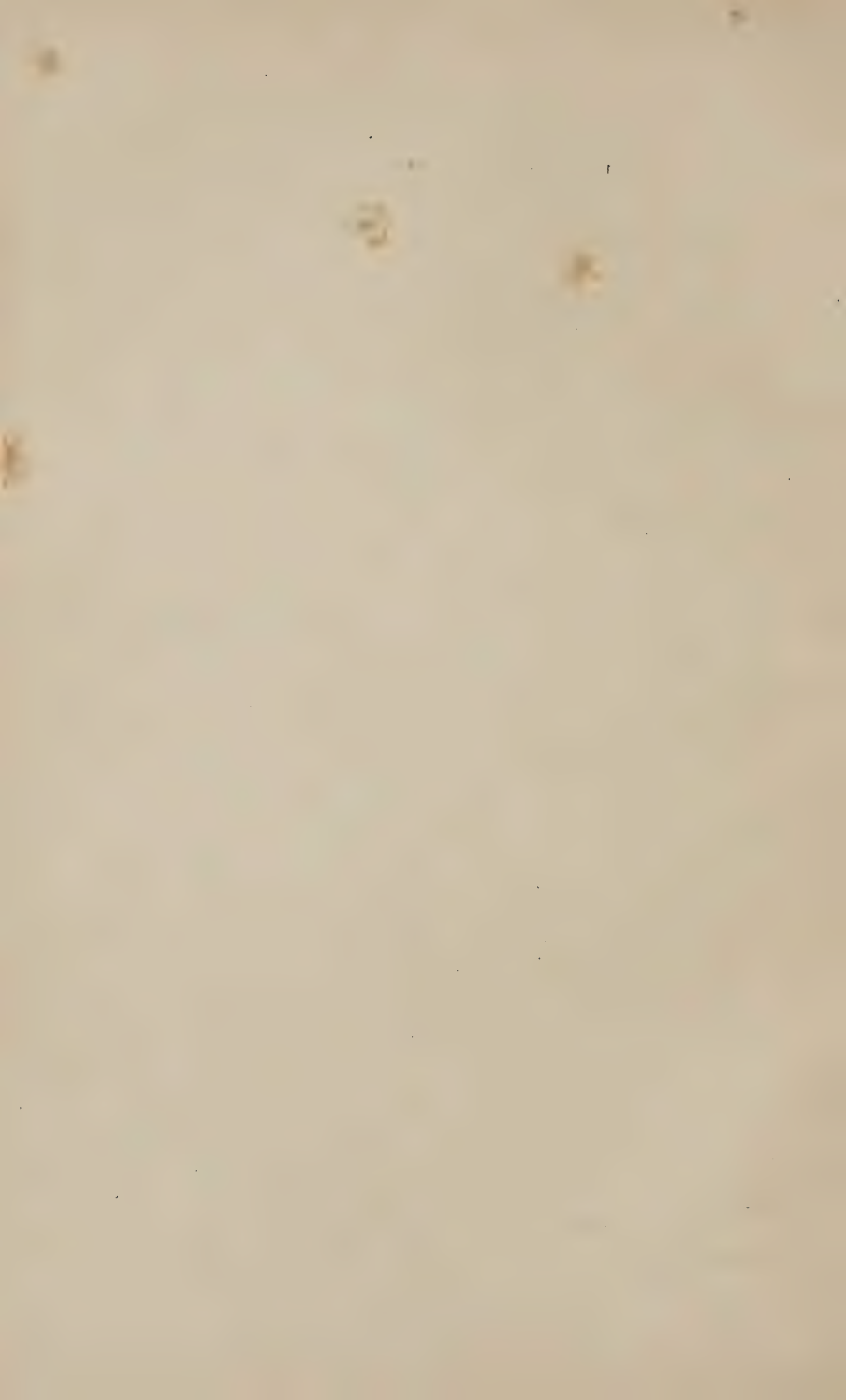


Fig. 6



"To nog bricks" is in French *Hourder les pans des bois—hourder* is to rough-work—literally "to fill in the timbers with rough work," generally bricks.

Nogs, in *Bricklaying and Joinery*. Wood bricks—i.e. blocks of wood of the same dimensions as bricks, let or built into a brick wall at points to which wood framing, as of doors, is to be secured or nailed.

Norman Style, in *Architecture*. The style which succeeded the Saxon (which see). Those writers who classify what they call the Gothic style of architecture into five classes, to correspond with the five orders, so called, of Classical architecture, make the Norman the second of the Gothic style, the Saxon being the first, the Early English the third, the Perpendicular the fourth, and the Decorated the fifth. The Norman style considered as *per se*—and not as belonging to Gothic architecture at all, which, strictly speaking, has for its chief characteristics pointed arches, tall aspiring columns or shafts, and tapering buttresses and pinnacles, etc.—is characterised by features essentially its own. Norman arches are semicircular, generally more or less deeply recessed—that is, with arches gradually diminishing in diameter towards the interior, and supported by clustered shafts, which, considered as a whole, constitutes the column. These columns are always low in height and massive in bulk. In the earlier specimens the shaft capitals and arch mouldings are plain, but in later examples they are more or less highly, and in the latest specimens richly, ornamented. A characteristic moulding of the Norman style is the zigzag. Where towers are given to the building they are square in plan, and very low as compared with the lofty and tapering features of true Gothic buildings.

Nosing, in *Joinery*. The projecting edge or moulding at the outside of the step of a stair is so called. It is that which defines the profile or outline of the outer edge, which may be plain or more or less ornamented. Syn. Fr. *Face extérieure d'une marche* or *Extrémités des marches*—pron.

fahce ex-tay-ree-eure d'nehn marrsh; Ger. *Treppenkante*—pron. trep-penn-kahn-teh.

Notch, in *Construction*. A part cut out of the surface of some material, as a beam or stone, forming an indentation generally angular in section, the two sides being oblique to each other. Syn. Fr. for to notch, *Ruder*—pron. rueh-day; Ger. *Aufhauen*—pron. owff-how-enn. Syn. Fr. for notching in carpentry work generally is *Entaille*; Ger. *Überscheite*. Syn. Fr. for a triangular notch, which may be taken as the general form or section, is *Patte*—pron. pahtt; Ger. *Klaue*—pron. klow-eh.

Notch Board, in *Joinery*. The board secured to the wall at the side of a staircase into which the ends of the steps are housed or notched, the notches forming a zigzag of alternate horizontal and vertical lines, corresponding to the "rise" and the "tread" of the steps (see those terms). Syn. Fr. *Lumon*—pron. lee-mon; Ger. *Treppenwange*—pron. trep-pen-vang-eh—literally "the cheek of a stair." A more accurate term is *Treppenbrett*, "a step-board."

Notches, in *Architecture*. The small curved parts or arches between corbels, or sometimes placed in the face of the corbel itself.

Nut (of a screw-bolt), in *Ironwork in Building Construction*. The part, either square or hexagonal in plan, and of a depth or thickness corresponding to the diameter of the screw-bolt, which is an integral part of the appliance termed a "screw-bolt and nut." The bolt being passed through the holes in the parts to be secured together—the bolt-head pressing against one, generally the lower, surface of a body—the nut is screwed on to the screwed or upper end of the bolt and fast up to tighten the whole connexion. The appliance used for screwing up the nut is termed a key or spanner. Syn. Fr. for nut, *Ecrou de boulon*, or simply *Ecrou*; Ger. *Mutter*. Syn. Fr. for nut-key or spanner, *Clef à écrou*—pron. klay ah eh-kroo; Ger. *Schraubenschlüssel*—pron. shlow-ben-shles-sel.



Oak. The most valuable of our native hard-wood timber trees—the term "English oak" being a synonym for all that is sound and durable. Syn. Fr. *Chêne*—pron. shain; Ger. *Eiche*—pron. eye-keh. Syn. Fr. for "oakwood," *Bois de chêne*; Ger. *Eichenholz*. Syn. Fr. for "oak plank," *Planche en chêne*; Ger. *Eichendiele*—pron. eye-ken-deal-eh (see Timber).

Obelisk, in *Architecture*. A special feature of the Egyptian style, one being placed at each side of the entrance to a temple. They are square in section or plan,

comparatively small at base, and gradually tapering to the upper end, which is slanted off at the sides to form a pyramidal point. The sides are usually covered with hieroglyphics. What is called Cleopatra's Needle, now erected on the Thames Embankment, has made many now familiar with this architectural form. Syn. Fr. *Obélisque*—pron. oh-bay-leesk; Ger. *Obelisk*—pron. oh-bell-isk, or *Spitzsäule*—literally "a pointed pillar"—pron. speetz-zoy-leh.

Octostyle, in *Architecture*. A term used to indicate a portico having eight columns

in front. The French term is the same in spelling as ours—pron. ock-toe-steel; Ger. *Achtsäulig*—literally “eight - pillared”—pron. ahcht- (like the Irish *och*) zoy-lich.

Offset, in Building. Where the face of a wall is not in the same plane, but part is set back, this is termed an offset. Thus, in building a house the upper story walls are thinner than the lower story walls, having less pressure to bear or resistance to offer. The course where the reduction of thickness is carried out is called the “offset,” forming a species of narrow horizontal shelf running along the walls. The term is also applied to cases where one part of a building projects before another. The step-like parts of the foundation, as of a brick wall, in which the breadth is gradually reduced to the thickness of wall to be raised upon it, are also termed offsets. Syn. Fr. for this meaning of the term is *Fondation en saillie* (from *saillir*, to project)—pron. faun-dah-see-on ahn sahl-ye; Ger. *Vorsprung*—pron. four-sproong.

Ogee, in Architecture. A moulding the profile or edge of which in section shows a curve of contrary flexure—one curve being concave, the other convex. It is sometimes, and more scientifically, termed the *Cyma reversa*. The ogee is a form used both in Classical and Gothic architecture; in the latter modified according to the style. Syn. Fr. *Ogive*—pron. oh-jeeve; Ger. *Karniess*. This is, perhaps, more strictly the synonym for the joiner's plane for striking the ogee moulding. The other German term is *Hohlleisten*—pron. hole-lyce-sten—literally “a hole or hollow band or border.”

Opening, in Architecture or Building. A term used to signify a void space in a wall, as that left to be fitted with a door or window. Syn. Fr. *Ouverture*—pron. oo-va-ure-ture; Ger. *Oeffnung*—pron. eff-noong.

Open Newelled Stairs, in Joinery. Staircases in which the well hole is rectangular, and which have two or three flights of stairs with level landings between the flights.

Open Work, in Construction. Surfaces, as of wood or of stone, in which apertures, plain or more or less ornamented, are cut, through which daylight is seen. Syn. Fr. *à Claire voie*; Ger. *durchbrochene Arbeit*—literally “broken-through work”—pron. doorsh broh-ken-eh ahr-bite.

Orangery, in Garden Architecture. A house specially designed and constructed—a species of hothouse and conservatory—in which orange trees, are grown and cultivated. Syn. Fr. *Orangerie*—pron. oh-rah-n-jerr-ee; Ger. *Gewächshaus*—literally “a plant or vegetable house.” A more accurate term would be *Orangenhaus*—pron. oh-rann-jenn-house, or *Orangerie*—pron. oh-rann-jeh-ree.

Order, in Architecture. Sometimes called style. The term, however, is strictly appli-

cable to Classical architecture—that of style being specially used in connection with Gothic architecture. The orders of Classical architecture proper, often called the Grecian style, are only three—the Doric, Ionic, and Composite. In Roman Classical architecture two other “orders” are added—the Tuscan, between the Doric and the Ionic, and the Composite, after the Corinthian. The Roman and Grecian orders vary in many of the details. Syn. Fr. *Ordre*; Ger. *Ordnung* or *Säulenordnung*—literally “a column or pillar order,” as the orders are distinguished by the columns.

Oriel Window, in Architecture.—A window projecting from a wall at a floor or at a level above the ground floor, to distinguish it from a bay or a bow window, which starts from the ground level, and which usually stops there, though it sometimes is carried up to the second floor. The oriel window is generally semicircular in plan, the line of face of wall forming the chord or diameter of the arc. The base of the oriel window sometimes rests on brackets or corbels of a more or less ornate character. Usually the base is formed of a series of curved rings gradually diminishing in diameter till it becomes pointed. Syn. Fr. *Fenêtre en saillie d'oriel*; Ger. *Erkerfenster*—literally “a corner window,” the oriel being often placed at the corner or the meeting edge of two walls. The derivation of the term oriel still, after all the discussions about it, remains shrouded in obscurity.

Out of Winding, in Building Construction. A term used to indicate that a surface, as that of a stone or board, is perfectly true. It is synonymous with adjusted or worked fair or true.

Outfall, in Sewage and Drainage. The place of ultimate deposit of the drainage or sewage waters. In the case of house drains the outfall is into the main sewer, and the contents of this are delivered to, and it has its outfall at, the river, the sea, or into the settling tank of the sewage (purifying) works, as the case may be. The term is often used as synonymous with outlet, though this is more accurately confined to the point where a small drain opens into a larger one or into a sewer. Syn. Fr. *Issue d'un tuyau de décharge*—pron. eess-ue duhn twee-oh deh day-sharrj; Ger. *Abzug*—pron. ahp-tsooch.

Outhouse, in Building. A small structure or erection generally placed at the back of a house, either connected with it, as an offset (which see), or detached at some distance from it. It is used for a variety of purposes,—usually for storage purposes, or for the locality of a privy, ashpit, etc., or it may be adapted to the keeping of pigs or poultry. It is a synonym for out-building, and means in both cases strictly a building detached or

separate from the main building or house. Syn. Fr. *Annexe*—that is, connected with or joined to; Ger. *Hinterhaus*—in the sense that the structure is at the back part of, or behind, the house.

Outline of a body, as of a moulding, is a term used to indicate the lines bounding the form or giving the form to a body. Applied to a drawing, the term is usually an outline sketch, giving only a general idea of the form of the body, details being left to the more complete and finished drawings. Syn. Fr. for outline in its general sense, *Tracé*—pron. trah-say; Ger. *Riss*—pron. reece; Syn. Fr. for outline sketch, *Contour*—pron. caun-toor; Ger. *Skizze*—pron. skit-seh.

Ovolo, in *Architecture*. A synonym for

the moulding known as the "quarter-round," the profile being formed in the Roman style by describing the fourth part, quadrant, or quarter of a circle, joining the fillets above and below—hence the term "quarter-round." In the Grecian style the synonym is echinus—pron. eh-kine-us—the curve which is not a part of a circle, as in the Roman moulding, but of an ellipse; and is so named as it is supposed to resemble the profile line of the seashell known as the echinus or sea-urchin. Syn. Fr. for quarter-round, or ovolo, *Quart de rond*, *Ove*; for echinus, *Echine*—pron. aish-een; Ger. for ovolo, *Wulst*—pron. voolst—literally "a swelling moulding"; also *Eierleiste*, from its resemblance to the curve of an egg—literally "an egg band"; for echinus, *Eichen*—pron. eyk-enn.

P

Packing, in *Construction*. A term used to indicate a process of adjusting two bodies, as in the case of a block of stone lying upon another, or two beams or members of a framing lying upon or butting against each other, so that they shall "bed fair" or "lay level." The term is also, and perhaps more frequently, applied to the filling in of central spaces of walls in masonry with small stones bedded or grouted in mortar. In masonry where the blocks have not been properly faced, or in rubble where they are not well selected in relation to their beds or meeting surfaces, packing is frequently resorted to, and in the last-named sense of the term so much so that the wall is much less solid than it appears externally to be. Many stone-built walls are thoroughly honeycombed, and not truly solid, from this cause. In timber framing, packing pieces are frequently used, but generally as temporary expedients till the various adjustments are made and the work finally completed. Syn. Fr. *Emballage*—pron. ahm-bahl-ahj; Ger. *Einpacken*—pron. ine-pahk-ken, or simply *Packen*.

Padlock, in *Ironmongery*. What may be called a portable lock, inasmuch as it can be wholly removed from the parts to be locked, and applied only when required—all other locks being fixtures, or permanently connected with the parts to be secured together. The padlock is of two parts: the body, which contains the lock proper, and is generally almost circular in form, the upper part of the circle being cut off to form a flat part; sometimes the body or case of the lock is formed heart-shaped, but also having its upper side flat. The other part is the hoop or latch part. This is jointed at the right-hand end of the flat or upper side of the body or lock-case, and made flat at the other end of the bent hoop. In this part a slot is cut, into which the

ward of the lock passes, and which holds it fast when the key is turned to the left. The hoop passes through the staple, eye, or hook driven into one part, as the style of a gate, to be secured or locked to the other part or fixed member, as the gatepost. To this the strap or hasp is jointed, and has a narrow slot at its outer end which passes over the face of the hook driven into the style of the gate. The hoop of the padlock is then passed through the staple or eye, and when locked keeps the hasp in its place, and thus prevents the gate being opened. Syn. Fr. *Serrure mobile*, or *Serrure portatif*; Ger. *Hängeschloss*, a hanging or hung lock. The term pad is derived from the Old English *padd*, a path, and used as a prefix—the padlock being originally used to lock gates leading to a path.

Paint, in *Building Construction*. The mixture of oil and colouring matter, or of colouring matter and size (as glue), used to decorate surfaces with. Der. From the French *peindre*, and this from the Latin *pingere*, to paint. Syn. Fr. *Couleur*—pron. koo-leurr; Ger. *Farbe*—pron. farr-beh. Syn. Fr. for "to paint," *Mettre en couleur*; to daub over or coat with paint, *Enduire*; Ger. *Farbengrund geben*.

Painter. The tradesman who undertakes the painting of houses, etc. It is generally associated with the term paperhanger in this country. Syn. Fr. *Entrepreneur de peinture*—pron. ahn-terr-pray-neurr deh painn-tuurr. This term is more applicable to a master painter—a workman painter being simply *Peintre*. Syn. Ger. *Maler* generally: a house painter, *Hausmaler*, also *Anstreicher*.

Paling. The timber construction used to enclose a space, as a garden or field, is so called. It is made of a series of upright vertical pieces or small posts placed at intervals, driven into the ground, and secured together by horizontal pieces, and

in some cases strengthened with oblique braces. In some forms the paling is made up of planks or boards placed close together, supported by uprights and braces; but the proper term for this form is boarding. *Der.* From the Old English *pal*, or from the Latin *palus*, a stake. Syn. Fr. The nearest approach to our term is, perhaps, *Palissade*—pron. pah-leess-ahd, or *Haie de bois*—that is, a fence (or “hedge” literally) of wood; Ger. *Pfahlzaun*—pron. pfaal-tsown—literally “a post or stake fence.”

Pane of Glass, in Glazing. The flat sheet of glass fitted in between the sash bars or astragals, filling in the window-frame with transparent material. In consequence of the improvement in glass manufacture, panes are now made of dimensions far beyond those which our ancestors used. The best windows are now fitted with sheets of plate-glass, which is not only highly translucent, but is of great strength. It may be called burglar proof, as it is not easy to cut compared with ordinary panes of glass; and its breakage is accompanied, moreover, with so much noise that alarm may be given by it. *Der.* From the Old English word *pan*, a piece. Syn. Fr. *Carreau de verre*—literally “a square of glass,” as originally the panes were made square or equal-sided and set angularly or lozenge-wise between narrow strips of lead—with us termed quarry, obviously a corruption of *carreau*; also *Panneau de verre*—literally “a panel of glass”—pron. karr-oh or pann-oh deh vairr; Ger. *Fenster- or Glass-scheibe*—pron. glass-shy-beh (*Scheibe*, a disc or slice, a pane of glass)—literally “window-pane, glass pane.”

Panel, in Joinery. Thin boards, generally of rectangular form, fitted into void spaces left between the styles, muntins, and rails of doors, forming also features in deep or old-fashioned dados or skirting-boards. *Der.* From the French *panneau*, which is diminutive of *pan*, signifying a flap, a pane; Ger. *Füllung*—literally “a filling-up piece.” Syn. Fr. for “panelling,” *Lambrissage* (*lambris*, the lining, wainscoting, of a room)—hence another synonym for panel, *Panneau de lambris*; Ger. *Fachwerk*—literally “compartment work.” Syn. Fr. for “panelled,” *Pannelé*; Ger. *Füllungen*, also *ausgefacht*.

Pantile, in Roofing Work.—A tile almost universally red in colour, which gives the painter's warmth or tone of colour in pictures in which tiled—not slated—houses are depicted. The cross section of the tile shows a curve of double and contrary flexure, like the ogee (which see), the right-hand edge being turned over to lap or cover part of the flattish surface of the next series of tiles in the roof—the tiles being laid in parallel lines running from the ridge to the eaves. The tiles are individually supported

by cross battens nailed to, and running across, the face of the common rafters of the roof truss,—small projecting square pieces or studs being formed on the under side and at the upper end of each tile, those catching and being supported by the cross battens. The curved or hollow surfaces of the tiles form gutters, by which rain falling on the roof surface is carried down to the eaves gutter. The prefix “pan” is an abbreviation of the French word *panneau*, a panel. Syn. Fr. *Tuile flamande*—pron. tweel flah-mahnd—literally “Flemish tile,” this picturesque form of roof-covering having been introduced by the Flemings; also *Tuile courbée*—pron. koor-bay—literally “curved tile,” as distinguished from the flat tile used in paving; Ger. *Dachpfanne*—literally “a roof pan” or cover, also *Hohlziegel*.

Pantry, in Domestic Architecture. A closet or small room fitted up with shelving, in which household stuff is stored. It is distinguished from the larder by the character of the materials stored in it,—the latter apartment being generally devoted to the keeping of meat, fish, and perishable food, the pantry being used to store up tea, sugar, etc. If devoted to crockery or glass, it is usually called a china closet. Syn. Fr. *Gardemanger*—pron. garrd-mahn-jay—literally “a guardian place for things to eat”; Ger. *Speisekammer*—pron. spy-zeh-kahm-merr.

Paper for Drawing. The paper used for the preparation of the drawings required by the building constructor and architect. It is of various sizes and qualities—“demy” and “royal” being the smallest, and “antiquarian” and “elephant” the largest-sized sheets. Machine-made paper being made in webs of very great length—the breadth also being very considerable—“sheets” of any length may be had of this class of paper. The great defect of all drawing papers is their liability to shrink; and this shrinkage is so unequal, not only in one sheet as compared with another, but even in different parts of the same sheet, that “scales” drawn on the sheet are practically little to be trusted to as giving accurate measurements of the lines of the drawing taken from them. Cartridge paper, the most common of all the classes used, is the most valuable, as it displays in a less degree the objectionable features of shrinking. Syn. Fr. *Papier à dessiner*—literally “paper to design with”—pron. pahp-yay ah des-see-nay; Ger. *Zeichenpapier* (*zeichnen*, to draw or design)—pron. tsyehen-pah-peer. *Tracing paper.* A thin or tissue paper saturated with oil, prepared according to different recipes. The best quality is the French, and that bearing the brand of “St. Léon.” It is remarkably transparent, takes on both ink and colour

with great freedom, and is so tough that it does not crack and split on folding, as so many of the inferior tracing papers do, to the great annoyance and loss of those who have frequent occasion to refer to and use tracings of drawings. The best tracing papers are those bluish-white in colour. We have always found those of a yellow or yellowish tinge brittle and unsatisfactory in use. In using the paper it is stretched over the drawing on the drawing-board, and carefully secured so that it does not move or shift in position. The lines of the drawing seen clearly through the tracing paper are then gone over or traced—hence the name—in ink or pencil, as desired. Syn. Fr. *Papier huilé*—pron. wee-lay—literally “paper oiled,” or *Papier ciré*—literally “paper waxed”; also *Papier à calquer* (*calquer* [kahl-kay], to counter-draw, to trace, to copy); Ger. *Oelpapier* or *Wachspapier*—pron. vahx-pahp-earr, oiled or waxed paper. *Tracing cloth*. Where tracings, as of working drawings, are to be frequently referred to, in order to resist much handling, which would soon destroy even the best of tracing paper, a species of transparent linen is employed largely. It is beautifully transparent and very strong. Syn. Fr. *Toile à calquer* or *Papier toilé*—literally “linen cloth paper”; Ger. *Zeichenkattun*—pron. kaht-toon—literally “drawing cotton cloth.”

Paperhanging. A branch of building work generally associated with painting. As its name denotes, it concerns itself with the sale and putting on the walls of the paper chosen by the landlord or the tenant for the decoration, or as it is very frequently termed in popular phrase “beautifying,” of the house. Sometimes the choice of the paper—that is, of its design or pattern—is left to the painter or paperhanger; and we regret to say that the selection made does not always justify the trust reposed in him—the paper, both in design and colour, being altogether unsuitable, and in some cases simply hideous. It is to be regretted that such designs are printed, sinning as they do so grievously against all rules of design and of good taste so called. But such designs must be called for by the public, or they would not be produced. Let us hope that they will be called for less frequently in the future, as correct ideas of what is design and what generally is good taste become more widely spread. Syn. Fr. for “paper (wall),” *Papier tenture*—literally “paperhangings”; Ger. *Tapeten*—literally “tapestry” or “hangings.” Syn. Fr. for “maker of wall-paper,” *Fabricant de papiers-tenture*; Ger. *Tapetenfabrikant*. Syn. Fr. for “paperhanger,” *Tapessier* or *Colleur de papier*; Ger. *Tapetzierer*.

Parapet, in Architecture and Building. In architecture, the wall at the upper part

of and terminating a wall, generally about breast-high above the flat roof, of the highest apartment which forms the floor of the part, as in a tower or turret, surrounded by the parapet wall. This is usually formed into what are called battlements or open parts—a feature which was introduced in the Early English (Gothic) period. In the later Gothic styles the piercing of the parapets was done in styles generally highly ornamental. The pierced parapet work of the Elizabethan style is very ornate. The walls at the sides of a bridge are also called parapets. Der. From the Italian *parapetto*, and this from the Latin *para* and *petto*, the chest or breast. Syn. Fr. *Garde corps*—literally “body guard”; Ger. *Brustmauer*—literally “breast wall”—that is, a wall breast-high.

Pargetting, in Building. A species of plaster, composed of mortar mixed with cowdung, used to line or plaster the interiors of chimney flues, for which purpose it seems particularly well adapted. The term is also applied to the plaster used for the outside surfaces of houses built in the half-timbered style peculiar to England. In those the plastered surfaces are whitewashed, the timber beams, straight and curved, being painted black.

Paring Chisel, in Tools. A tool generally used by the joiner in taking or shaving off small parts of a piece of timber to give it the desired form. The chisel is flat, of varying breadths, and is used for flat surfaces. When hollow surfaces are being worked, the paring chisel assumes the form of a chisel the cutting edge of which is curved in section, and is called a “gouge.” Syn. Fr. for paring chisel, *Ciseau mince*—literally “a thin, slim, or slender chisel”—pron. seize-oh mainss; Ger. *dünner Meissel*—literally “a thin chisel.” Der. The term “paring” is from the French *parer*, to dress, trim, or finish, and this from the Latin *parare*, to prepare. Syn. Fr. for “to pare,” as applied to joiner’s work, is *Rogner*—pron. rong-yea, to gnaw, cut, clip, or trim; Ger. *Schälen*.

Parlour, in Domestic Architecture. An apartment in a house synonymous with a sitting-room; but in the case of large houses it is a lesser room to which one can retire from the dining- or drawing-room for greater privacy or quiet. It has a curious derivation—literally it means “a speaking (in private) place,” a quiet room apart from the noisy, frequented hall of the houses of olden times, and comes from the French *parler*, to speak. This is seen in the French synonym *Parloir*—pron. parrl-wahr; also in the Ger. syn. *Sprechzimmer* (from *sprechen*, to speak, to talk to).

Partition, in Building. The walls in bricklaying and masonry, and the frame-

work in carpentry, which divide one apartment from another, are termed partitions. Where not of timber, they are formed, even in stone-built houses, of brick not thicker than one brick in length, but usually only of half-brick thickness, or "brick on bed." In but too many cases, however (as in the dwellings of the working, and even in some of those for the middle classes), they are built thinner still—namely, "brick on edge"—a thickness, or rather thinness, which should not be tolerated under any wisely framed Building Act. Both surfaces or faces of brick partitions are finally plastered; the faces being left as rough as possible in building, to afford good holding surfaces or keys to the plaster. Partitions framed with timber are generally known as "quarterings" or "quartered partitions"; the parts being termed quarters. A partition frame has for its chief parts the sill or cill or base, the upright posts at the ends, the head parallel to the cill, the doorposts, the braces or struts, and the puncheons. Laths are nailed on each side, to which the plaster is secured. Partitions thus made are chiefly hollow—hence called sometimes "hollow quartering partitions," and therefore aid greatly the extension of fire should it break out in the building of which they form a part. In good construction the interior should be filled up with incombustible material, in the way so much practised on the Continent. *Der.* The term is directly from the Latin *partitio*, and this from *partire*, to divide. Syn. Fr. *Cloison*; also *Paroi*—pron. kloah-zon, parr-wah; for "hollow partition," *Cloison non hourdie*—that is, a partition not made in rough work, but simply of timber; for "trussed partition," *Cloison avec décharge*; for "wood partition," *Cloison des planches*—that is, of planks or boards; for "partition wall," *Mur de refond.* Syn. Ger. for "partition," *Zwischenwand*—pron. tsvish-enn-vant—literally "a between wall"; for "hollow partition," *hohle Scheidewand* (*scheiden*, to separate—*Scheidewand* is another synonym for partition); for "trussed partition," *Bindewerkscheidewand*—that is, the work framed or bound together; for "wood partition," *Bretterscheidewand*—pron. brett-err-shy-deh-vahnd for "partition wall" (of brick or stone), *Zwischenwandmauer*—pron. tsvish-en-vahnd-mow-err.

Party Wall, in Building. The wall built on the dividing line between two properties, to separate the one property or site from the other. The conditions of the construction and maintenance in good repair are usually named in the title-deeds of the properties; the points being mutually agreed to, should the properties be under two different landlords. The term may either be considered as an abbreviation of

"parting" wall, or as a wall belonging mutually to two "parties" or individuals. Syn. Fr. *Mur mitoyen commun*, which conveys the last-named derivation—that is, a middle wall in common; Ger. *Zwischenmauer* or *Mittelmauer*.

Pavilion, in Architecture. An isolated structure, as a summer-house, erected in a garden, having a pointed roof curved concavely like a tent roof, or convex like a dome. Frequently the roof is of double curvature, like the curve known as the "ogee" (which see). Strictly defined, a pavilion is a tent of more ornate form and of larger dimensions than the ordinary tent. *Der.* The term is from the French *pavillon*, a tent. The German synonym is the same as the French in spelling—pron. pah-vill-yon.

Pavilion Roof. A curved roof, so called from its resemblance to that of a tent, or rather a pavilion. Syn. Fr. *Toit en pavillon*; Ger. *Holländisches Dach*—that is, a Dutch or Holland roof, this class of roof being a noted feature of Dutch architecture.

Paving, in Brickwork, is a pavement surface made of bricks either "on bed" or "on edge." The bricks are generally laid so as to form a kind of pattern by placing them obliquely to another. Paving in tiles is formed with flat, thinnish tiles, generally square, which are sometimes ornamented with projecting and indented parts to form a good foothold. Tiles of different forms and colours are used to form patterns of various kinds. The best paving tiles are the blue Staffordshire tiles, paving "bricks" being made of the same material, which gives a hard, metallic-looking and sounding tile and brick. Encaustic tiles give the highest class of paving, and are generally confined to interior work, as halls, entrance-halls, lobbies, etc. They are made of very superior material in different shapes, and have their surfaces beautifully coloured; and when put together to form a whole, give a certain general design to the pavement more or less, and in expensive work highly ornamental. Paving in stone is done by the aid of large-dimensioned stones, generally rectangular—that is, of greater length than breadth—bedded carefully on a proper foundation, edge to edge and end to end, being retained in position by an outside range or ranges of cubical blocks, termed unitedly the kerb or "curb stone" (which see). Certain classes of stone are used to form paving-stones, or pavement—this being the term more specially applicable to flat-surfaced paving. *Der.* The term paving is from the French *paver*, and this from the Latin *parire*, to strike or beat down; a part of the paviour's work being to force down—especially in the case of paving-stones or small blocks—the material with

a heavy implement called the "paviour's rammer." Syn. Fr. for "to pave," *Paver*; Ger. *Pflastern*. Syn. Fr. for "pavement," *Pavé panneau*—pron. pah-vay pah-noh; Ger. *Pflaster*—pron. pflass-ter. Syn. Fr. for "to pave with tiles," *Carreler*; Ger. *mit kleinen Platten pflastern*. Syn. Fr. for "stone pavement," *Dallage*—pron. dahl-ahj; Ger. *Plattenbeleg*—pron. platt-enn beh-laig. Syn. Fr. for "paving tile," *Mattoir*—pron. mah-twahr; Ger. *Ziegel für den Fussboden*—literally "brick-for-the-foot floor." Syn. Fr. for "paving brick," *Brique à paver*; Ger. *Pflasterziegel*. Syn. Fr. for "paving stone," *Pierre à paver*—pron. pee-air ah pah-vay; Ger. *Pflasterstein*—pron. pflass-turr-stine.

Paviour. The workman who lays down pavements. Syn. Fr. *Paveur*; Ger. *Pflasterer*. Syn. Fr. for "paviour's rammer," *Marteau d'assiette*—literally "a plate hammer"; Ger. *Rammel*—pron. rahm-ell, or *Pflasterhammer*.

Pedestal, in Architecture. A stone block, square in section, of greater height than breadth of face, furnished with "base" and "cap" or "cornice" mouldings. Its use is to support columns or pillars, and its mouldings are in keeping with those of the column which it carries. The central part, which is generally flat between the base and the cornice, is called the "dado" (which see), also "die." The term "surbase" is sometimes used to indicate the cap. Der. From a compound—*pes, pedis*, the Latin for foot, and the German word *stal*, a statue or resting-place; or it may be from the Italian word for the part, *piedestello*, which means the same thing as the above compounded term. Or it may be derived from the French synonym, *Piedestal*, in which if the "i" be left out our word is obtained. Syn. Ger. *Säulenstuhl*—literally "the pillar or column stool"—pron. zoy-lenn-stoohl.

Pediment, in Architecture. That part, generally triangular in shape, placed at the upper part of a building front or façade, and often filled-in in the interior and receding or central part with sculptured ornaments or figures. Of this feature the pediment of the Royal Exchange in London is a well-known and fine example. The pediment is sometimes terminated with a pointed pinnacle, sometimes with a sculptured figure. The pediment is also frequently used over doors and windows: sometimes left pointed, sometimes broken in the centre, and sometimes with a rounded in place of an angular, straight-lined upper surface. The derivation is the same as that of *Pedestal*, as above, so far as the Latin word *pes, pedis*, a foot, is concerned—as if the crown of the pediment was the base or foot of the ornament or statue with which an ancient pediment was often finished. Syn.

Fr. *Tympan*—pron. taim-pahn; Ger. *Giebel-feld*—literally "the gable field."

Pegs, in Carpentry. Small pieces of wood, circular in section and of varying lengths and diameter, used to connect pieces of timber together after the manner of nails—the pegs being driven into auger holes made to receive them, which holes pass through the pieces of timber to be secured together. A synonym for peg is "pin," and a term very frequently used is "trenail" (which see). The small stakes used for laying out and marking off the position or plan of a house on the site are also called pegs. Syn. Fr. *Tacquet*; also *Cheville* or *Bouton de bois*—literally "a bolt of wood"—pron. tak-kay, shay-veal, booh-tohn deh bwah; Ger. *Holznaegel*—literally "a wood nail"—pron. hollts-nah-gell.

Pencils, Drawing. Pencils of a superior kind, used by architects and engineers in the preparation of drawings. They are of different qualities, or "grades" as the technical term has it, beginning with F for "fine," the softest, and ending with H H H H, or "four H," being the hardest of all—the intermediate grades being, H, "hard," H B, "hard black," H H, or "double H," harder than H, and H H H, or "treble H," a quality harder still. The full or proper designation is "lead pencil," inasmuch as the pencil proper is a hair pencil, being derived from the Latin *penicillum*, and this from *peniculus*, a diminutive of *penis*, a tail. Syn. Fr. for drawing pencil, *Crayon à dessiner*—pron. kray-on ah des-see-nay; Ger. *Zeichenstift*—pron. tseich-enn-steefft—literally "a mark pencil," or *Bleistift* (from *Blei* [bly], lead).

Pendant, in Architecture. A hanging or suspended ornament or feature of the Gothic style, and markedly of that known as the Perpendicular Gothic. Formed of stone or wood, and richly ornamented, they form a very striking and beautiful feature in buildings in this style. Pendants often take the place of "bosses," the ornaments often used under or to conceal the keystone of vaults or arches. For derivation of the term see below (Pendent Bridge). Syn. Fr. *Pendant*, simply, or as a substitute for bosses under the keystone of an arch, *Clef pendante d'une voûte*—literally "the hanging keystone of a vault"—pron. klaif pang-dangt doohn voot; Ger. *Hängeschlussstein*—literally "a hanging keystone"—pron. heng-eh-shluhss-stine. Remarkably rich and fine examples of pendants are to be met with in Westminster Abbey, in Henry VII.'s Chapel. The term is often used as "Pendative"; but this also is a term in building denoting the arches thrown across and joining and supporting the angles of a square tower; on which a superstructure, as a spire octagonal in section, is raised. Another

synonym for pendentive is *Squinch*. Syn. Fr. *Pendatif*—pron. pahn-dah-teef; Ger. *Hängebogen*—literally “a hanging arch”—pron. heng-eh-boh-gen.

Pendent Bridge. A timber bridge the side beams of which are supported at their ends by abutments and by vertical posts placed at intervals between them. Der. The term “pendent,” which is used in building construction, is from the Latin *pendens*, and this from *pendere*, to suspend or hang.

Pendentive Cradling, in Joinery and Plastering. The curved ribs used in arched and vaulted ceilings to carry or support the plaster work.

Pentastyle, in Architecture. A term used where the portico of a building has five columns or pillars. Syn. Fr. *Pentastyle*—pron. pahn-tah-steel; Ger. *Fünfsäulig*—pron. fuenf-zoy-lich—literally “five-pillared.”

Penthouse, in Building. A structure external to and projecting from the main building; or a small detached outhouse or hovel having an inclined or sloping roof. A synonym sometimes used is a shed-roofed house, sheds generally having a roof sloping from one side only; a span roof—i.e. one sloping on both sides—being used only for large sheds. Der. The term “penthouse” is from the French *pente*, down or sloping, and the English house. Syn. Fr. *Au vent*—pron. oh vahn; Ger. *Schirmdach*—literally “a roof shelter”—pron. sheerm-dach.

Peripteral, in Architecture. The fourth order of public temple architecture according to the great authority Vitruvius, in which columns were placed all round and with six columns in front. Syn. Fr. *Périptère* (from *peripteros*, the Latin name for the arrangement); Ger. *Ringsumherflügel*—literally “a roundabout wing”—pron. rinngs-oom-hairr-flueh-gell. The more correct synonym is *Säulenhallen ringsum*—literally “halls pillared all round.”

Peristyle, in Architecture. An interior court in Grecian and Roman houses—also met with in temples—surrounded with columns or pillars, thus forming a colonnade. The term is often, but erroneously, applied to a straight and detached row of columns. Syn. Fr. *Péristyle*—pron. perr-ee-steel (from the Latin name *peristilium*); Ger. *Peristyl*—pron. pare-ee-steel.

Perpendicular Style, in Architecture. The latest style of Gothic or Pointed architecture, the era of which commenced at the end of the fourteenth, flourished chiefly during the fifteenth, and on through the early portion of the sixteenth century. The characteristics of the style are so marked that it is perhaps the easiest of the Gothic styles to be popularly determined. They are displayed best in the windows, in which

it will be observed that the main lines of the parts filling in the window space or void are all vertical or perpendicular to the sill. The mullions or parts dividing the general space or void into “lights” or compartments are carried right up to the “head,” or part immediately enclosed by the pointed arch, which is generally of the “four-centred” variety. All the tracery of the heads of windows is distinguished also by perpendicular lines. Another peculiarity of the style is the extremely light and elegant proportions of the window openings; they are much taller or higher in proportion to their width or breadth than windows in other styles of Gothic architecture. Another feature of the style is the panelling used both in the exterior and interior of the buildings, this being profusely given and highly ornamented. Corbels are in this style supported or carried by angels, with widespread wings and folded hands—a characteristic ornamental feature.

Perpend Stone, in Masonry. A stone or block which extends through the whole thickness of the wall, showing at both sides or faces. It is more commonly termed a “through.” Syn. Fr. *Assise de perpaining*—pron. ah-seez deh pairr-paihn; Ger. *Durchbindestein*—pron. doorch-binn-deh-stine—literally “a through binder stone.” Properly a binder or bond stone is not always carried through the wall, showing at both sides; it may stop short of the one side. The distinction between it and the perpend stone is that this always goes completely through.

Perpend Walls, more accurately spelt as “perpeyn,” is a term which is sometimes met with in architectural descriptions. It means in one sense walls built with large square blocks of stone, not rough or irregular in outline, and may in this way be considered as synonymous with what is called “coursed rubble” (see Rubble). In another sense the term perpeyn or perpend walls means walls which are built in the interior of enclosing walls of a building and at right angles to them, thus forming a series of divisions like stalls, examples of which are met with in some of our ecclesiastical buildings.

Persians, a synonym for *Caryatides*—that is, female figures used in place of columns to support entablatures, etc. The term is also sometimes applied to the projecting hood or canopy placed over the outside upper part of a window. Syn. Fr. *Persans*—pron. pairr-sahn.

Pick, in Tools. An instrument used for various purposes in *Building Construction*. Its general form in plan, or when looked at in side view, is curved, or part of a circle of large diameter. The central part is widened out in both directions, on the edge as well as on the face, so as to admit of the

formation of a central slot or aperture which forms the eye of the pick, into which the wooden handle is secured. The ends of the pick, or outer extremities of the arc forming it, are finished in one of two ways: they are either sharp, or widened out to form a species of chisel or axe-like edge. The points in both cases are of steel, though the body of the tool is of wrought iron. The pick is much used in breaking up soils, more or less hard, or soft rock. The sharp point enters the soil or rock, and pieces are detached by using the tool as a lever, of which the handle forms a part. In loose soils the pick with chisel-shaped or adze-shaped points is used, it being frequently termed, when of this form, a "mattock"—in some cases a pickaxe. There is a single-pointed pick also in use, which closely resembles the adze in appearance. The "quarryman's pick," which is almost identical with the "mason's pick," has the head or metal piece much shorter and lighter than the ordinary pick. It is straight in the direction of its length, the eye or hole for handle being in the centre of this; the points are of steel, and sharp. This form of pick is used with both hands, and its office is, in the case of the quarryman, to rough-dress the stones, bringing them into something like the desired form in the case of the mason, to dress the surface of stones in the peculiar way known as "hammer-picked," or simply "picked." *Der.* The term "pick" is from the Old English word *pycan*, to prick or pierce, the "pick" being first forced or driven into the soil to pierce it, and then used as a lever to "prise" or force off the piece or lump. *Syn. Fr.* for "pick," *Pic*—pron. peek; *Ger. Pick*—pron. pik-keh. *Syn. Fr.* for "the mason's or quarryman's pick," *Pic-à-pierre* or *Pic-à-roc*; *Ger. Steinpicke* or *Keilpicke*—literally "a wedge-shaped pick"; also *Keilhaue*—pron. kile-how-eh—literally "a wedge-shaped hoe" or mattock. Sometimes the pick with two ends or points is called a "double pick," to distinguish it from the pick with one end, which is termed a "single" or "hand pick." *Syn. Fr.* for "double pick," *Pic-à-marteau*; *Ger. Zweispitzpicke*—pron. tzvigh-spitz-pik-keh—literally "a two-pointed pick." *Syn. Fr.* for single or hand pick, *Pic-à-main*; *Ger. Handpicke*—pron. hant-pik-keh.

Piece, in Carpentry. A term employed, synonymous with "member," to indicate a separate part of a timber construction or framing, or of an assemblage of timbers. *Der.* The term is from, and is identical in spelling with, the French *pièce*—pron. pee-ace—and this from the debased or Low Latin *pecia*, a part of a body or substance. *Syn. Fr. Pièce d'une construction en bois* or *Pièce d'une ferme en bois*. "Piece of timber" is a

phrase frequently used in carpentry; in the art of joinery the expression is the same, with the exception of "timber," for which the term "wood" is substituted. *Syn. Fr.* for the first of these terms, *Pièce de charpente*; for the second, *Pièce de menuiserie*. *Syn. Ger.* for piece of timber, *Zimmerholz* (see Carpenter). To "piece up" a part of construction is generally used to indicate the completion of a part by filling in or adding to a part or parts which have been omitted, broken or decayed. *Syn. Fr. Joindre*—pron. jwahn-derr—literally "to join"; *Ger. Ausstücken*—literally "to piece out."

Piece-work. A system so called, in which workmen are paid for the (piece of) work they actually do. This having a determinate value or price attached to it, the workman knows that if he completes the work quickly and well he will make more money—that is, get a greater sum in a given time—than if he lingers over and delays its completion. Piece-work has great advantages over the ordinary system of payment by weekly wage, but it has its disadvantages also. These have operated so powerfully in some directions that the system has become by no means generally adopted. Much has been written about it *pro* and *con*. *Syn. Fr.* for to do piece-work, *Travailler à façon*—that is, according to the customary price alluded to or value of a given piece of work; *Ger. beim Stück arbeiten*.

Pier, in Masonry and Architecture. A vertical part of stonework built in the waterway or channel of a river to support the arches of a bridge; the arch springing from each side of the central pier, and the haunches of the abutment on each side, or from one pier to another should there be more than one arch in the bridge. The term is also applied to structures of stone or of brick to carry beams, as the iron beams of a railway bridge; also in other departments of building, as the solid parts between window openings; or where stone or brick parts are used to support beams, etc. The term is also applied to those erections—whether solid, as of stone, or constructed of columns, beams, etc.—which are carried out from the land into the sea. *Der.* The term is from the French *pièce*, a stone, and this from the Latin *petra*, a rock. For the term indicating the pier of an arch, as that of a bridge: *Syn. Fr. Arc boutant* or *Arc support*—literally "the arch bearer or support"; *Ger. Unterstützungsbogen*—pron. oon-ter-stuets-oongs—literally "the arch support"; also *Scheidebogen* (from *scheiden* [shide-en], to separate), the top of the pier being the point at which the straight line of the pier and the curve of the arch are separated. *Syn. Fr.* for the term applied in marine work, as synonymous with mole, jetty, or breakwater,

Môle, Jettée — pron. jeu-h-tay; Ger. *Molo, Hafenbrücke* — pron. hah-fenn-brueck-keh — literally “a harbour bridge.” Syn. Fr. for pier of a wall, or solid part between window voids, *Côtes* (sides), *Tableaux* (tables or flat spaces) *d’une fenêtre*.

Pier Glass, in Cabinet Making. A large mirror fixed in a movable or portable frame set on castors or friction rollers, so as to be easily removed from one part of the dressing- or bedroom to another, or “set” in any desired position, in order to judge of the adjustment of the dress or figure as a whole. Syn. Fr. *Trumeau* — pron. truhm-moh; Ger. *Schaftspiegel* — literally “a stalk or stem mirror” that is supported by legs or pillars at the side; hence also the term *Pfeiler-spiegel* — literally “a pillar glass”: this last is the more accurate synonym.

Pierce, To, in Construction. A term synonymous with “to bore,” as by auger in the case of timber, or with the chisel and tamping bar in the case of stone. The term is also used in timber framing, as when one piece is framed into another it is said to pierce it. *Der.* The term is directly from the French *percer*, to pierce or penetrate, and this from the Latin *pertundere*, to bore through and through. A French synonym other than *Percer* is *Entamer* — pron. ahn-tah-may — although this means strictly to penetrate, break or cut through the surface, or make the first cut; Ger. *Anbohren*. For to “pierce through and through,” or, as we should otherwise say, penetrate a piece: Syn. Fr. *Perforer* — pron. perr-fo-ray; also *Transpercer* — that is, pierce through — pron. trans-perr-say; Ger. *Durchlöchern* — literally “to make a hole through”; also *Durchbohren*, to bore through — pron. doorch-lech-ern, doorch-boh-renn.

Piercing Saw, in Tools. Sometimes called also a “keyhole saw,” as it is frequently used to cut out the keyholes or other small apertures in wood pieces; so also it is sometimes termed a “small tenon saw,” used to cut out tenons in dovetail work in small objects, as workboxes and the like. Another name by which it is known is “fret saw,” as it is used for cutting out “frets” and the parts in buhl and inlaid work. The saw is a long, thin and narrow blade — almost pointed at the end — very flexible, so as to go round curves and follow waving and intricate lines in the part to be cut. To “enter” the saw, or to enable it to begin its work, a small piece of wood at the solid part, away from the lines to be followed, is bored or cut out. Syn. Fr. *Scie à découper* — literally “a saw to cut out” — pron. see ah day-koop-ay; also *Scie à contourner*, a saw to follow the contours or lines of the design or part to be cut out; Ger. *Lochsäge* — literally “a hole saw”; also *Laubsäge* — literally “a leaf or foliage saw,”

indicating that it is capable of cutting out the complicated parts constituting a design of leafage or foliage — pron. loch-zay-geh, lohb-zay-geh.

Pigeon Holes, in Cabinet Making. Part of a desk, cabinet, or escritoire, partitioned off into small compartments, into which letters and documents are placed so as to be easily got at for reference. In lock-up pigeon holes the compartments are concealed by a falling board lifted up, or by swing doors. Syn. Fr. *Serre-papier*, a place for locking up papers — pron. serr-pah-pee-ay; Ger. *Papierfächer* — literally “paper compartments.”

Pigeon House, in Rural Architecture. A small apartment within the general range of the farmhouse or the farm buildings or “farmery,” set apart for the placing of nests for the rearing, and perches or sitting places for the housing of pigeons. Pigeon houses are sometimes detached from the other farm structures, being built either of stone or brick, or, in the case of some detached structures, in the form of a small barrel or lantern-formed house or shelter for the pigeons erected on the upper part of a post or pillar. This kind of pigeon house, known as the *lanterne*, is a well-known feature of the farmyards of certain districts of the Continent, as in Flanders and the north of France. Syn. Fr. *Colombier* — pron. koh-lohm-bee-eh; Ger. *Taubenhaus* — pron. tow-benn-house. Syn. Fr. for a “lantern pigeon house,” *Lanterne de colombier*; Ger. *Taubenhaus mit einer Säule*, or the better synonym is *Säulentaubenhaus*.

Pilaster, in Architecture. A pillar rectangular in section, projecting from and connected with the front or the face wall of a building. *Der.* The word is from the debased or Low Latin *pilastrum* (from *pila*, a pillar). Syn. Fr. *Pilastre* — pron. pee-las-terr; Ger. *Pilaster*; also *viereckige Stützen* — literally “quadrangular or square supports.”

Pile, in Building. A timber beam, either square or circular in section, provided generally with a pointed end encased in iron, and with a ring near the top or cap, for driving — by piling machine — into the ground, in order to form a firm foundation on which to build a structure, as the pier of a bridge, in soil which is not very sound or which is liable to lateral movements. *Der.* The term is from the Old English *pil*, a stake. Syn. Fr. *Pilot* — pron. pee-lo; also *Pieu* — pron. pe-yeh; Ger. *Spitzpfahl* — literally “a pointed stake” (*Spitze*, a point, and *Pfahl*, a stake or post).

Pile, in the sense of a heap, as a heap of stones. Syn. Fr. *Massif* — pron. mah-seef; for “to pile up,” *Mettre en pile*, or *Empiler* — pron. ahm-pee-el-eh; Ger. *die Steinmasse*; also, *der Steinhäufen*.

Piling Engine, or Pile Driver. The machine by which piles are driven into the ground. It consists of a tall, narrow frame, erected close to the line along which the piles are to be driven, the centre of the frame being furnished with two projecting pieces of timber placed some inches apart—these forming a guide, down which a heavy mass of iron, called the “monkey” or “ram,” slides when allowed to drop from the top of the frame to the head of the pile, which it drives into the soil. The ram is raised by a small winch and tackle, by means of double-jointed hooks and chain. These hooks have outspreading curved ends, which, when separated, cause the hooks to grasp or grip the head or handle of the heavy ram; but when they are brought together forcibly, the hooks spread out from, and let go their grip or hold of, the ram head or handle. At the head or upper part of the pile-driving frame two cheeks are secured. These are placed apart, and are curved or shaped on their inner sides so as to present an open space of the same shape as the open or separated arms of the hooks. On raising the ram by means of the hook and chain, turning the winch or small windlass fixed to the frame of the pile-driver within easy reach of the workman, as the hook arms approach the cheeks at top of frame, they enter the space between them, and as the hoisting is continued, the arms of the hook are pressed together. This widens the hook arms, so that the handle of the ram is relieved; and the heavy ram being thus left free, drops a height equal to the height of the frame, and falls with great force directly on the head of the pile, which is prevented from splitting by an iron ring passing round the neck or cap of the pile. Syn. Fr. *Sonnette*—pron. son-nett; also *Sonnette à tiraude*—pron. tee-rohd; Ger. *die Ramme*—pron. ram-meh; also *Zugramme*.

Pillar, in Architecture. A member of a building popularly considered to be the same as a column. But there is a clear distinction between the two terms. While the column always forms one of the regular orders of architecture, and has the proportions of its various distinct parts set off in strict accordance with the particular order to which it belongs, a pillar may be altered both in the particular parts or members and in the established proportion of the parts. The term pillar is more correctly applied to Gothic architecture than column—to which the term shaft or that of pier is, however, commonly applied; but the term pillar is better than either of these two last terms. The pillars constitute the principal features of the Gothic style; those of the Norman style—if that be admitted one of the Gothic styles, as some admit it—are short and very

massive. The pillars in the Early English style of Gothic are slender, and appear to be made up of a series of small columns clustered together, yet detached, so that they surround a central pillar or shaft. The pillars of the Decorated style are also slender, and more truly clustered than those of the Early English style, as they join each other closely. The pillars of the Perpendicular style are lighter still, as if made of mouldings, which frequently run round the arch from the base of one pillar to the base of the next; in this arrangement there is no break in the mouldings by a capital—which is, therefore, absent from examples of this kind. Der. The term pillar is from the Latin *pila*, a pillar. Syn. Fr. *Pilier*—pron. peel-yeh; also *Colonne*—pron. ko-lonn; also *Support*—pron. sueh-porr; Ger. *Pfeiler*—pron. pfy-lerr; also *Säule*—pron. zoy-leh.

Pin, in Carpentry and Joinery. Equivalent to “peg.” A small piece of wood, generally round or circular in section, sometimes with and sometimes without a taper in the direction of its length, being thus smaller at one end than at the other. It is sometimes called a trenail (which see). The pin is used to unite separate pieces of timber or wood together; the hole into which it is driven being formed by the auger in carpentry, and the brace-and-bit or the spring bit in joinery. In joinery, in uniting two flat pieces or boards together, the pin projects a short distance from the edge of one piece, and is a fixed member, it passing into a hole made to receive it in the edge of the other board at a corresponding point in its length. Der. The word is from, and is an abbreviation of, the German *Pinne*. Syn. Fr. *Cheville*—pron. sheh-veel; also *Tige de bois*—literally “a stem or stalk of wood”—pron. teej deh bwah; Ger. *die Pinne*; also *hölzerne Nadel*—literally “a wooden needle”; also *Bolzen*, a bolt—pron. boll-tzenn.

Pincers, in Tools. A term applied sometimes, more frequently in Scotland, to the hand tool employed to take a grip or hold, as of a nail in driving it out from its position, and to which the name of nippers or pliers is more generally applied. Syn. Fr. *Pince*, *Tenaille*, or *Bignette*; Ger. *Handzange*, or simply *Zange*—pron. tsang-eh.

Pine Wood, in Architecture. A timber largely used in carpentry, and specially in joinery. There are various kinds employed the principal being white, yellow, and red pine (this list showing an ascending scale of value). Syn. Fr. *Bois de confère*—pron. koh-nee-fairr; Ger. *Nadelholz*—literally “needle wood,” referring to the spike or needle form which the leaves assume.

Pinnacle, in Architecture. The upper termination or pointed finial of parts of buildings, such as towers and buttresses. In Gothic architecture the pinnacles are

marked features, from the general elegance of their form and their ornamentation. *Der.* From the Latin *pinnaculum*, and this from *pinna*, a feather. Syn. Fr. *Pinacle*; also *Aiguille*—pron. ay-gweel; Ger. *Gipfel*—pron. gip-fell; also *Fiale*—pron. fee-ahl-eh.

Pipe, in *Construction*, as a drain-pipe, or water- or gas-pipe. The term tube is often used as synonymous with this. *Der.* Our word pipe is of Anglo-Saxon origin, the word being spelled precisely as ours. The first pipe or tube, as for conveying water, was doubtless a hollow reed. Syn. Fr. *Tuyau*—pron. twee-yoh; also *Conduit*—pron. kondwee; Ger. *Röhre*—pron. roeh-reh.

Pisé, in *Building*. In construction, a method of constructing walls so called, much practised in some parts of the Continent. The material used is soil—if clayey the better. This is rammed hard into hollow moulds made of boards on each side, the space between being the thickness of intended wall. The arrangements for fixing the frame or mould, as the building of the wall advances, are simple but effective. Much of the system has been adapted to the modern method of concrete wall building. Though this supersedes all use of pisé in this country, it is well adapted to the colonies, and would indeed be a capital substitute for the many tumble-down cottages, so called, which disgrace some of our own districts. Syn. Fr. *Construction en pisé*—pron. pee-zay; also *Terre battue*—literally “beaten earth,” referring to the way in which the soil is rammed down into the moulds; Ger. *Stammbau*—meaning the same thing as the last given French phrase.

Pit, as a lime-pit. A hole or excavation made in the soil at a convenient part, near the building in which the lime is slaked and mixed for the mason, bricklayer, or plasterer. *Der.* From the Latin *puteus*, a well, or from the Old English *pitt*, a hole or well; it may come also from the French *puits*, which again is derived from the Latin, as above. Syn. Fr. *Fosse*—pron. foss; Ger. *Grube*—pron. groo-beh. A “sand-pit” is an excavation from which sand is dug, as a “marl pit” is one from which marl is taken out.

Pitch, a term used in *Construction*. The pitch of an arch, for example, is the distance measured from a horizontal line joining the points from which it springs to the under side or soffit of the arch—in other words, its “rise” or “height,” so that in a semicircular arch the pitch is equal to its semi-diameter or its radius. The “pitch of a roof” means the slope or inclination of the sides: thus, when the angle is low it is termed a low pitch; if the angle is high, a high-pitched roof. *Der.* From the Old English *picchen*, to prick. Syn. Fr. for the pitch generally,

Portée—pron. porr-tay; Ger. *Neigung*—pron. nyegoong.

Pitching Piece, in *Carpentry*. A piece of timber is so called which is built into and projects from the face of a wall used to support or carry the rising strings of stair-cases where there is no trimmer used.

Pitch Pine, in *Timber*. A synonymous term for red pine, as there is so much more resinous matter in it than in yellow or white pine. Syn. Fr. *Bois de pin*, *de poix* (*poix*, pitch pine—pron. pwah).

Place, in *Construction*. A term used to denote the putting in position of certain pieces of material, as to place a beam. Syn. Fr. *Poser*—pron. poh-zay; Ger. *Lagern*.

Place Brick, in *Bricklaying*. A common variety or poor quality of brick. Syn. Fr. *Brique de rebut*—literally “rubbish brick,” a title which many bricks used for building well deserve—pron. breek deh reh-bueh; Ger. *weichgebrannter Ziegelstein*—literally “soft-burnt brick”—a description which fully explains the character of such bricks but too frequently employed in construction which is said to be sound and good—pron. veich-geh-brann-terr tzee-gell-stine.

Plan, in *Building*. The one of a set of drawings which shows the arrangement of the parts as horizontally disposed—as, for example, the apartments of a dwelling-house, the disposition and thickness of the walls, and of the different apartments, etc., which they enclose. Correctly, it is a horizontal section—that is, a section taken in a line parallel to the horizon, at a point which will cut all the parts. In domestic architecture there are several plans required in a complete set: as “block plan,” showing the position of the building in relation to the ground on which it is to be built, roads, garden, etc.; “plan of foundations,” showing the position and width of foundation of walls; “basement or cellar plan,” showing the arrangement of apartments; “general plan,” which is the principal plan, in which the entertaining rooms, kitchen, etc., are placed; “chamber plan,” showing the disposition of bedrooms, etc. If there are more than two stories in the house, the third story is called the “second floor” or “two-pair” plan, the first story in this case being the “first floor” or “one-pair” plan; the fourth story is the “three-pair plan,” to which there may be added the “attic plan,” showing the apartments in the roof; and, finally, the “roof plan,” of which there should be two—one showing the disposition of the timbers, which may be called a naked roof plan, the other showing the outside of the roof, which is a covered plan. *Der.* The term plan is from the Latin *planus*, a flat or level. Syn. Fr. *Plan*—pron. plahn; for “ground plan,” *Rez de chaussée*—pron. ray deh shoa-say—literally “the floor on a

level with the pavement"—that is, entered from the ground level; for 'chamber or first floor,' *Plan de première étage* (generally written *1ère étage*)—literally "the first floor." Syn. Ger. for ground plan, *Grundriss*, "a ground sketch"—pron. groond-riss.

Plane. A tool used largely by joiners and cabinet makers in planing—that is, levelling and smoothing the surfaces of boards. The varieties of planes are very numerous, embracing many forms of moulding planes for "striking" or forming mouldings, ploughing, etc. Der. From the Latin *planus*, the root of the word plan (which see). Syn. Fr. *Rabot*—pron. rah-boh; Ger. *Hobel*—pron. hoh-bell.

Planks, in Timber. Thin boards sawn out of the balk, and cut into breadths exceeding nine inches in width, are so called. Planks and boards are very frequently used as synonymous. Der. From the Latin word *planca*, a board. The French synonym is from this, namely, *Planche*—pron. plahush; also *Ais*—pron. aye; Ger. *die Diele*—our word "deal" comes from this—pron. dee-dee-leh; also *das Brett*—literally "a board."

Planting, in Masonry. A term used to denote the operation of laying the first courses of a foundation on a level bed.

Plaster, in Plastering. The material, made of lime mixed with sand and hair, which is used for the base or first coat of the plaster covering, so called, of wall surfaces, the whole being finished with a coat of finer materials (see Coarse Stuff, Fine Stuff, Floated Lath and Plaster, etc.). *Plaster of Paris* is the mineral known as gypsum, calcined to deprive it of its moisture, and then reduced to a fine powder. When this is mixed with water into a thin paste it can be run into moulds to form ornaments for interior wall and ceiling decoration. The composition is remarkable for its quickly setting properties, as it hardens almost immediately. It is so called from the fact that it is chiefly found in the quarries which underlie certain parts of Paris, of which the district yielding the best quality is Montmartre. Der. From the Latin *emplastrum*, and this from the Greek *emplastron* (from *en*, and *plassein*, to mould). Syn. Fr. *Plâtre*, —pron. plah-terr; Ger. *Kalkgyps*—literally "chalk gypsum." Syn. Fr. for plaster of Paris, *Plâtre de Paris*; also *Gypse cuit*—that is burned or fired gypsum; Ger. *Pariser Gyps*—pron. pah-ree-zerr gipps.

Plasterer. The workman who makes and applies the plastering materials to the covering of walls, ceilings, etc., and to their decoration by cornice and other mouldings. Syn. Fr. *Plâtrier*—pron. plah-tree-eh; Ger. *Gypsbereiter*.

Plastering. The act or work of laying on and finishing of plaster. Syn. Fr.

Enduissou—pron. ahn-dwee-song; Ger. *Uebertünchen*.

Platband, in Architecture. A flat and square moulding, the height of which is much greater than the distance which it projects beyond the member on which it rests, as the upper part of a pier from which an arch springs. The lintel of a door or of a window is sometimes designated by this term. Syn. Fr. *Plate-bande*—pron. plah-tahnd; also *Fasse*—pron. fass; also *Bandeau*—pron. bahn-doh; Ger. *die Platte*—pron. plah-teh; also *das Band*—pron. bant.

Plate, in Carpentry. A piece of timber, rectangular in section, laid on a wall, as a "wall plate" (which see), to receive the end of another piece of timber, as a tie-beam, the two being secured together by various forms of joints. Syn. Fr. *Sablier*—pron. sah-blee-eh; Ger. *Platte*.

Plate Glass, in Glazing. A superior quality of glass, so called because it is made in large plates, the use of which for window glazing admits of large lighting surfaces being used. Syn. Fr. *Glaze*; Ger. *Spiegelglas*. These terms are synonymous with mirror-glass or cast-glass (plate). A more definite French synonym is *Glaze coulée* (flowing or cast)—pron. glass koo-lay; Ger. *Guszsiegelglas*.

Plate Iron, in Ironmongery. A term used often in place of sheet iron. Syn. Fr. *Fer en côte*, or simply *Côte*; Ger. *Schwarzblech*—literally "black iron plate"—pron. shvarts-blech.

Platform Roof, in Building. A roof terminated with a flat part or flat roof—an ordinary roof truncated. Syn. Fr. *Comble plat*; also *Plate-forme d'un toit*; Ger. *flaches Dach*—pron. flach-ess dach—literally "flat roof."

Pliers, in Tools. (See Pincers.)

Plinth, in Architecture. The square, flat surface immediately under the mouldings of the base of columns—the square base. The term is also used to denote the square solid on which a pedestal or wall rests; also a projecting offset at the base or ground-level line of buildings. Der. From the Latin *plinthus*, meaning the same thing. Syn. Fr. *Plinthe*—pron. plaint; Ger. *Plinthe*—pron. plin-teh; also *Tafel*.

Plug, in Building. The name given to small blocks of wood driven into holes made in the brickwork or masonry, and to which woodwork is secured. The plug performs the same office as the wood brick (see Bricks; also Wood Brick). Der. The term is probably from the Low German *plugge*, or the Swedish *plugg*, a peg. Syn. Fr. *Tampon*—pron. tahm-pohn; also *Bouchon*—pron. boo-shon; Ger. *Zapfen*—pron. tsapp-fenn; also *Stöpsel*. In carpentry the French synonym is *Clef*—that is, a key—which is the word used with us to denote the same part.

The German is *Zapfen*, as above. In the sense of a trenail in carpentry work, the French synonym for plug is *Cheville de lien*—literally “a tie-peg”—pron. shay-veel day lee-an; also *Étêlon*—pron. eh-tay-lon; also *Moise*—pron. mwahz—i.e. a binding piece; Ger. *Zapfennagel*—pron. tsap-fennah-gell—literally “a peg-nail.”

Pointed Architecture. Another term frequently employed to denote the Gothic style, and so called from the characteristic feature of the arch, which is not rounded like that of Classical or the horseshoe arch of Moresque architecture. Also so called from the aspiring, vertical character of the Gothic style terminating, as parts generally do, in points, as pinnacles, finials, etc.

Pointing, in Building. The filling in of the external joints or spaces left between the bricks or stones with mortar or cement; so called, we presume, because the work is chiefly done with the point of a fine, sharp-nosed trowel. What is called “flat pointing” is done by marking the joints of the brick-work with a flat trowel; “tuck pointing” is done by using fine plaster or cement, and making each joint with parallel lines or edges at top and bottom. Syn. Fr. *Rejointement*—literally “rejointing”—that is, making good the joints left open, more or less, in setting the bricks or stones; also *Jointoient*—pron. ray-jwoynt-mahn; jwoynt-wah-mahn; Ger. *Verbündelung*—pron. ferr-ben-dl-oong.

Pole Plate, in Carpentry. A small-sectioned—generally square or rectangular—piece of timber let into the upper end of the tie-beam of a roof-truss near its end, against which the ends of the “common rafters” abut. This makes it to run parallel with the “wall plate,” on which the lower side of the tie-beam rests. Syn. Fr. *Semelle de comble*—pron. seh-mell deh cohm-bel; also *Plâtebande de comble*—pron. plaht-bahnd deh cohm-bel; Ger. *Dachschwelle*—pron. dach-shvell-eh.

Poplar, in Timber Trees. A tree of which there are two varieties chiefly grown—the black and white poplar. The wood is of inferior value for constructive purposes, and is used chiefly for rough work. Syn. Fr. *Peuplier*—pron. peuh-plee-ay; Ger. *Pappelholz*. Syn. Fr. for white and black poplar respectively, *Blanc de Hollande* (or Dutch poplar)—pron. blahn deh holl-ahnd, or *Bois de peuplier blanc*—pron. bwah deh peuh-plee-ay blahn; and *Peuplier noir*—pron. nwahr. Syn. Ger. *Weisspappel* or *Schwarzpappel*—pron. vice-papp-ell, shvartspapp-ell.

Porch, in Church and Domestic Architecture. A covered entrance to the doorway proper of a building. In church architecture the porch in earlier buildings was made a remarkably striking and beautiful feature

of the building. The cathedrals of Lincoln and of Salisbury furnish fine examples in the Early English styles of Gothic architecture. In domestic architecture it is capable of being made, as it has sometimes been made, a very striking feature of the general design. In cottages and the like humbler structures it adds much to the comfort of the dwelling-house, especially if this would otherwise enter directly from the street or road. Der. From the French *porche*—pron. porsh, and this from the Latin *porticus*, a covered entrance. Syn. Fr. *Porche* or *Portail*—pron. porr-tahil; Ger. *Halle*—pron. hahl-leh.

Portico, in Classical Architecture. An additional member to the front end of a building or at the side, composed of a series of columns or pillars. If there are four pillars, the arrangement is termed “tetra style”; if of six columns, “hexastyle”; if of eight, “octastyle.” Syn. Fr. *Portique* (from the Latin *porticus*); Ger. *Portik*—pron. porr-teek; also *Säulengang*—literally “a column or pillar way”—pron. zoy-lenn-gang.

Portland Cement, in Materials. A cement largely used for various constructive purposes, and for the formation of concrete and artificial stonework. It derives its name from the fact that its colour closely resembles that of Portland stone—a brownish grey. The cement is made from hard nodules of calcareous clay found in the stones of the river Medway, and also in large areas at Boulogne. These nodules are calcined under a high temperature, and afterwards when cold are ground into a fine powder. Like nearly every other substance used in the arts, the cement is greatly adulterated by the addition of sand, etc. These debasing ingredients, while they enlarge the bulk, reduce the weight of the cement; so that the best test of its purity is its weight in relation to a certain measure of bulk. Thus good cement should not weigh less than 100 lb. per bushel, but for the best work 110 lb. is a much safer proportion to the bushel measure. Portland cement is hydraulic—that is, sets hard and indurates in water as well as in the open air. It is now very largely used in marine and submarine constructions, chiefly in the form of large blocks or monoliths. Syn. Fr. *Ciment de Portland*—pron. see-mahn deh porrt-lahn; Ger. *das Portlandcement*—pron. porrt-lant-say-mennt.

Portland Cement Concrete, in Construction. An artificial stone or concreted mass possessing generally the qualities of stone, and specially some good qualities not belonging to many building or natural stones. It is made by mixing the Portland cement with sand (or crushed or ground broken bricks or “breeze”) and water in certain

proportions. Fine, dry, clean sand—river, not sea or sea-margin sand—is one of the best substances to use in the making of Portland cement concrete. The proportion of this to the cement varies from three to seven of the sand to one of the cement—the first-named proportion being the best for superior work. For walls and massive blocks, while the exterior parts of the concrete or artificial stone are formed of the cement and sand or powdered bricks or breeze, the inner parts are made up of broken stones, stone shivers, broken bricks, glass, or almost any other kind of more or less bulky and incombustible and indestructible materials. The fine cement and sand, being run in between stones, etc., of the packing, bind the whole together in a solid and hardened mass. The cement and concrete are mixed together with water to form a thin mortar-like material. Syn. Fr. *Béton de pallende-ciment*; Ger. *Portländische Bêtongründung*.

Postern or Postern Gate, in Military Architecture. A small gate by which admission was gained to the interior of a fortified place. It was so placed as to be commanded by the archers or gunners defending the place. Syn. Fr. *Petite porte*; Ger. *Seitenthür*—pron. zy-tenn-tuerr.

Posts, in Carpentry. The vertical pieces of timber placed in a frame to support pieces, as the king-post or central member of a king-post truss, or the queen-posts at each side of the roof in a queen-post roof. Syn. Fr. (plural) *Poteaux*—pron. pott-oh; also *Montant en bois*; Ger. *Pfoste*—pron. pfoss-teh. The term "principal posts" is equivalent to posts, referring to the larger posts as the king-post. Syn. Fr. for "post of the string-board of a stair," *Jambette d'un escalier*—pron. jahm-bett duhn ess-kah-leey; Ger. *Treppenpfosten*.

Pricking-up, in Plastering, is the first coat in plaster work, laid upon laths. The plaster used is made of coarse stuff—that is, a mixture of lime and hair with some sand or road dust. The surface of pricked-up work is always scored or scratched pretty deeply with the tool, so as to form indentations, which afford a key or hold to the next and succeeding layer of the plaster work. The scores or scratches are made diagonally on the surface, and in opposite directions, so as to form diamond-shaped spaces. Syn. Fr. *Piquage de lattis*—pron. pee-kahj deh lah-tee; Ger. *Aufhauen der Lattung*—pron. owff-how-enn dare latt-oong. Syn. Fr. for "to prick" or prick a hole generally, *Piquer*—pron. pee-kay; Ger. *Stechen*—pron. staych-enn.

Prime, To, in Painting. A term used to indicate the preparation of wood or timber surfaces for the reception of the paint, such as by smoothing the surface by rubbing it

with pumice stone, killing the resin of knots, etc. Syn. Fr. *Apprêter*—pron. ah-pray-tay, or *Echauder*—pron. ay-show-day; Ger. *Gründen*—pron. gruenn-denn. Syn. Fr. for "priming," *Couleur fondamentale*—pron. kooh-leurr fonn-dah-mahn-tahl; Ger. *der Grund*—pron. derr groond.

Principal, in Carpentry. A synonym for the chief or principal rafters of a roof-truss (see Rafters). Their office is to support the purlins (which see), which in turn support or carry the common rafters. Syn. Fr. *Maitresse ferme*; also *Maitre chevron*—pron. may-terr shove-ron; Ger. *Alte*, also *Dachstuhlbalcken*. "Half principal" is a synonym seldom used for the "common rafter" of a roof-truss. Syn. Fr. *Ferme de croupe*—pron. fairrm deh kroop; Ger. *Walm-bindebalcken*—literally "the binding beam of a slope." Both these synonyms may be applied to the principal rafter.

Prise, To, in Construction. A term synonymous to raise or lift, although these two words are used in connection with objects more or less heavy or bulky; while the term "prise" indicates the double act of raising and separating or detaching, as in the case of taking off a small piece of wood which is nailed or secured to the surface of another and generally a larger part. In this act, the first operation is to insert the thin edge, as of a chisel or small crowbar, and when the hold or grip is secured, using the chisel as a lever, the fulcrum of which is the larger and lower body, thus separating the smaller piece from it. The nearest French synonym for the term "prise," used in the above sense, or as it may be spelt "pryse," is *Lever*—pron. lev-vay, to raise or lift; or perhaps better still *Détacher*—pron. day-tahsh-ay, to detach or separate, or *Desunir*—pron. dez-ueh-neerr, to disunite, or *Séparer*—pron. say-pah-ray, to separate. Syn. Ger. *Trennen* or *Absondern*—pron. ahp-zon-dern.

Privy, in Domestic Architecture. A term often used as synonymous with water-closet. Strictly speaking, it refers to a building or closet detached or separate from the house, as when placed in the backyard or in the garden. In this arrangement the construction is of the simplest, water, with its necessarily more or less complicated mechanical arrangements, being but rarely used. Syn. Fr. *Lieu d'aisance*—pron. lieu day-sahns; also *Latrine*—pron. lah-treen; Ger. *Abtritt*—pron. ahp-tritt.

Profile. The side or edge view of a moulding or building. The cross-section of a moulding shows its profile. Syn. Fr. *Profil*—pron. proh-feel, which is also the correct pronunciation of the English word, not *profile*, in which the file is pronounced as while, tile, etc.; also *Coupe verticale* or *perpendiculaire*—that is, a section or cut on a line at

right angles to the base—pron. koop vaihr-tee-kahl or parr-pahn-dee-kue-lairr; Ger. (the same as the French) *das Profil*; also *der Durchschnitt*—literally “a through cut”—pron. doorch-shnit.

Profile, To, in Architectural Drawing. To project, set out, draw in, or develop the profile of an object. Syn. Fr. *Profilér*—pron. proh-feel-ay; also *Faire la projection*—pron. fairr lah proh-jeck-tseeon, or *Faire le développement*—pron. day-vail-opp-mahn; Ger. *Durchschnitt*—literally “through-out sketch.”

Projections, in Building. Sometimes called “offsets,” parts which project from the main structure, as a bay or a bow window, a porch, etc. Syn. Fr. *Ressauts*—pron. ress-oh; also *Saillant*—pron. sah-eel-yahn; Ger. *Vorsprung*—pron. forr-sproong; also *Projecture*—pron. proh-jeck-tuehr.

Projecture, in Architectural and Building Drawing. The more precise and scientific term for setting out the lines of an object to serve as a guide in the laying down of the plan of a building, the setting-out of vertical heights, and in the construction of detached parts of buildings or objects. The term is borrowed from the theory or principle upon which drawing or setting-out is based, the various points of the object or body being supposed to be projected by visual rays to the eye of the draughtsman or to the plane, as the sheet of paper on the drawing board, in which the drawing is being made. Syn. Fr. *Projecture*—pron. proh-jeck-tuehr, a projection—same word as ours; Ger. *Ansichtzeichnung*—literally “the view or sight of the drawing”—pron. ann-zicht-tsicke-noong (*ch* guttural—see Dissertation).

Prop, in Building. A piece of timber or of stone, generally the first-named of these, used to keep up or sustain in a definite position some part of a structure, as the propping up of the wood “centre” of an arch. Props are placed either vertically or perpendicularly to the base, or oblique to the same; and are termed vertical or sloping or angular props. Syn. Fr. *Etrésillon*—pron. eh-tray-seel-yon; Ger. *Spreize*—pron. spright-seh, or *Stütze*—pron. stuet-tseh. Syn. Fr. for “prop,” as a strut or beam used for shoring up a wall or building, *Etaie*—pron. ai-tay; Ger. *Bodenspreize*. Syn. Fr. for “propping,” the act of shoring or staying up or supporting, *Etalement*—pron. ai-tay-mahn; Ger. *das Stützen*.

Puddling, in Building. The operation of making good foundations, forming watertight central spaces in embankments, etc., by ramming in layers of clay. The clay, which should be of good quality, free from earthy or vegetable matter or small stones, is laid down in layers of from two to three inches in thickness, and then rammed

tightly and uniformly down by a heavy paviour's rammer, or the clay trodden down by the feet of the workmen. The great object of puddling is to have the clay layers so pressed together that in mass they form a close impermeable body. Syn. Fr. *Puddlage*—pron. puedd-lahj; Ger. *das Puddeln*. Syn. Fr. for to “puddle,” to ram building spaces with clay, *Envaser*; also *Remblayer* (to fill up) *et piloner* (ram) *le terrain autour des fondements*—pron. ahn-vah-zay, rahm-blay-ay ay pee-lon-ay oh-toorr day fohn-deh-mahn; Ger. *Grundmauern* (ground walls —i.e. foundations) *anfüllen und feststampfen*—i.e. to fill (with puddling clay) and stamp or ram down foundation spaces—pron. ann-fuell-enn, fest-stamp-pfen.

Pug Mill, in Brickmaking. The mill used to mix and temper the clay used in the making of bricks. It is a tall, cylindrical case or receptacle of cast iron, within which a vertical spindle slowly revolves. This is armed with projecting blades, which cut into and press together against the interior of the case the masses of clay, which are pressed or passed out through an aperture made in the lower part of the case. Syn. Fr. *Pétrin*—pron. pay-trainh; also *Malaxeur*—pron. mahl-ahx-euhr; Ger. *Lehmmühle*, clay or loam mill.

Pugging, in Building. Filling in spaces with mortar, as between the flooring boards of one apartment and the ceiling below, in order to deaden the noises passing from one room to the other. The mortar is made up usually with mortar-hair and chopped or cut hay or straw. Syn. Fr. *Pilonage*; Ger. *Lehmstampfen*. “Pug-mortar” or clay is the name given to the material employed in pugging. Syn. Fr. *Torchir*—pron. torr-sheerr; also *Bousillage* (*sillage*, a track or way), meaning layers or long spaces filled with clay; Ger. *Klebelehm* (*kleben*, to stick)—pron. klay-beh-lame; also *Strohlehm*, straw mortar or clay.

Pulley Block, in Building Appliances. The block of wood, of an elliptical form, in which spaces are cut to receive a pulley with grooved periphery or rim, round which the rope used in obtaining a purchase, or in lifting heavy objects, is passed. The pulleys revolve on a central pin passing through the wooden block. Syn. Fr. *Moufle*—pron. mooch-fel; the term for the “pulley” is *Poulie*—pron. pooh-lee; Ger. *Rollkloben* (*Kloben*, a block); for pulley simply *die Rolle*.

Pulley Check or Frame, in Joinery. The part, as in a window, which supports the rope or chain from which the sash weights are suspended which balance the weight of the sash by which it is easily lifted or pulled down. Syn. Fr. *la Caisse*, a cage or shape; Ger. *Klobenhaus*—literally “the pulley-house.”

Pulley Sasheord, in Joinery. The cord

which passes over the sash pulleys (see above), and which are fixed to the upper bar of sash, and provided at the other with heavy iron weights to counterbalance the weight of the sash with its glass pane or panes. Syn. Fr. *Corde à poulie pour la fenêtre*; Ger. *das Seil der Fensterbekleidung*—literally “the cord (*Seil*—pron. zile) or rope of the window clothing or case.”

Pulpit, in Church Building. A raised platform surrounded by, or enclosed within, sides more or less highly ornamented, and from which the clergyman delivers his sermons. It is reached by stairs, which form part, and frequently a most striking feature, of the design.

Pumice Stone, in Painting. The porous light stone used for rubbing the surface of wood or of painted timber to make it smooth and give a good face to the layers of paint. It is the hardened lava of volcanoes. Syn. Fr. *Lave pumicée*; also *Pierre ponce*—pron. pee-airr pouss; Ger. *Bumstein*.

Punchcons, in Carpentry. The small or short vertical posts used in framing, as those over a door-void in a framed and quartered partition. Generally the term is applied to short posts (see Posts) or studs. Syn. Fr. *Potsaux de cloison*—pron. pote-oh deh klwah-zon (partition posts); Ger. *Wandsäule* (wall side pillars or posts)—pron. vant-zoy-leh.

Purchase, in Building Work. The power obtained as by men hauling in the rope of a pulley or a pulley block, or through the intervention of a crane or dumberaft, in raising or lifting heavy bodies. Syn. Fr. *Abutage*—pron. ah-buh-tahj; also *Force mécanique*; Ger. *Hall*.

Purlins, in Carpentry. The timbers in a roof-truss which are secured to the upper edges of the principal rafters, running parallel to the wall-plate, pole-plate, and ridge-plate or pole. The office of the purlins is to carry or support the “common rafters,” the lower ends of which butt against the pole-plate (which see), being notched thereto,

the upper ends butting against the ridge-pole or plate let into the head of king-post in a king-post roof. Syn. Fr. *Panne de comble*; also *Plateforme de comble*; also *la Travée*, or simply *Panne*; Ger. *Dachstuhl* or *Dachrahmen*.

Putlogs, in Bricklaying. The cross or transverse poles or sticks on which the planks are laid that form the platform on which the workmen stand while setting the bricks. The putlogs are inserted in the wall in holes purposely left for them, and which are called “putlog holes”; those are afterwards filled up with “bats” or pieces of brick when the building is finished. The outer end of the putlogs or horizontal poles is connected with, and secured to, the upright poles fixed in the ground. Syn. Fr. *Traverse*, or *Traverse d'échafaudage*—that is, the cross-pieces of a scaffolding; Ger. *Streckholz* (from *strecken*, to stretch or extend over—the pieces of wood stretching over the space between the wall and the uprights).

Putty, in Painting and Glazing. The plastic substance which glaziers use for securing panes of glass to the window sashes, and painters for stopping up holes and fissures in surfaces before painting, and for a wide variety of purposes. A very common form of putty is made of whiting mixed up with sweet-oil and worked by hand till it is in the soft plastic condition which admits of its being spread over surfaces and pressed into holes by the hand and thin elastic steel tool or pallet knife. After being exposed to the air for some time it changes into a dense solid mass. Syn. Fr. *Mastic*—pron. maas-teek; also *Lut* or *Potée à mastic de vitrier*—pron. luet, or poh-tay, day vee-tree-eh—that is, the lute or putty or mastic of the glazier; Ger. *Fensterkitt* or *Glaserkitt*—that is, window cement, or lute, or cement of the glazier.

Q

Quantities, Bill of, in Building Construction. The technical name given to the schedule or paper in which the various measurements—superficial and cubic or solid—are stated under the different heads of masonry, brickwork, carpentry, joinery, etc. From the data thus afforded—which are termed quantities, though the accurate term is measurements—the contractors or tradesmen are enabled to make their estimates of cost, knowing thus the amount of materials required in each department of work. In many cases, as in small buildings, the tradesman or contractor “takes out his own quantities”—that is, takes the dimensions or measurements from the drawings fur-

nished by the architect, calculating from these data the amount of materials required. But in special and large works the “bills of quantities” or “schedules of measurements” are made up by the members of a special profession, known as surveyors or building surveyors, whose remuneration is generally based upon a certain percentage on the estimated cost of the building—say 2½ per cent. Syn. Fr. for “measurement,” *Mètre*; Ger. *Vermessung*. Syn. Fr. for “quantity,” *Quantité*—pron. kahn-tee-tay; Ger. *die Menge*—pron. dee meng-eh; also *Masse*.

Quarry. The locality from which building stone is excavated is so called. A quarry,

though it usually is a pit or hole, frequently acres in area, is not necessarily an excavated place—it being frequently found in the vertical face of a cliff composed of the kind and quality of stone desired. Syn. Fr. *Carrière*—pron. karr-ee-aire; for “stone quarry,” *Carrière des pierres*; Ger. *Steingrube*—literally “a stone pit or grave”—pron. stine-groo-beh. Syn. Fr. for “quarry-stone” rough, as taken from its bed, *Moellon brut*—literally “a rough (*brut*) rag-stone”; Ger. *unbehauene Bruchsteine*. Syn. Fr. for “quarry-stone wall,” or dry stone wall built without mortar, *Mur en moellons*; Ger. *Bruchsteinmauerwerk*. Syn. Fr. for “quarry-stone work,” irregular blocks, *Moellon irrégulier*; for “quarryman,” *Carrier*—pron. carr-yea; Ger. *Steinhauer*—pron. stine-how-err.

Quarry Glass, in Glazing. This is the term used to designate the small square pieces of glass used in old buildings, and often reproduced in church windows and in those of domestic buildings of the Queen Anne style. The squares are often set diagonally or diamondwise. The term “quarry” is also sometimes used to denote small square paving bricks, the name being clearly a corruption of the French term for the same thing, *Carreaux*—pron. karr-oh.

Quarter Panel, in Joinery. A square panel which encloses a quatrefoil or four-leaved ornament in the Gothic style.

Quarter Round, in Mouldings. Otherwise termed the ovolo. A moulding the section or profile of which shows the quadrant of a circle in the Roman style. In the Grecian the curve is a fourth part of an ellipse. Syn. Fr. *Quart de rond*—pron. carr deh rohnd; also *Ove* (pron. ohv) or *Echine*; Ger. *Eichen*; also *Kropfleiste*.

Quarterings, in Carpentry. The stud or post work of a quartered partition (see Partition). Syn. Fr. *Bois de cloison* or *paroi*; Ger. *Bretterverschlagholz*—pron. brett-err-ferr-shlahg-hollts.

Quarters, in Carpentry. The vertical or upright posts in a quartered or framed partition which are placed at the ends of the framing, and the office of which is to carry the head beam, the quarters being tenoned at foot into mortises made in the “sill” or lower beam of the partition. Syn. Fr. *Pièce d'assemblage*—pron. pee-ace dahs-sahm-blahj.

Queen Posts, in Carpentry. The vertical posts, one of which is placed at each side, at a certain distance from the central point or ridge pole of roof. The queen post corresponds to the king post in a king-post truss or roof, but with this difference—that while the king post supports or receives the pressure of the struts or braces on both sides of its foot or lower part, each queen post supports the pressure of one strut or brace only (see next term). Syn. Fr. *Clef*

pendante—pron. klay pehng-dahngt; also *Poinçon d'une comble avec une espace ouverte dans le cintre*—pron. poh-ehng-song duuhn kohng-bell ah-veck uuhn ais-pass ooh-vairst dahng luh saing-terr; Ger. *Hängesäule*—pron. heng-eh-zoyl-eh; also *Hängesäule von zwei Hängesäulendächern*.

Queen-post Roof, in Carpentry. A roof in which there are two queen posts so disposed that a free or open space is left between them, which may be used as an apartment in the interior of the truss. This arrangement necessitates that the queen post shall receive the thrust or pressure of the strut or brace of the rafter on one side only; but this is balanced or counteracted by horizontal pieces called straining beams, which keep the heads of the queen posts apart, and prevent them from moving inwards to the centre, while the feet of the queen posts are equally dealt with by placing a horizontal piece between them called the “straining cill.” The other members of the queen-post truss, as tie-beam, principal rafters, common rafters, purlins, pole-plate, wall-plate, etc., are much the same as in the king-post. Syn. Fr. *Ferme ou comble avec deux poinçons*—pron. fairrm ooh kohng-bell ah-veck duuh poh-ehng-songs; also *Ferme à deux clefs pendantes*—pron. fairrm ah duuh cleffs pahng-dahngts; Ger. *Dach mit zwei Hängesäulen*; also *Zweihängesäulendach*.

Quicklime, in Materials. Burnt lime ready for slaking to form mortar. Syn. Fr. *Chaux vif*—pron. show veef—that is, “living lime,” as distinguished from its dead or inert condition in its natural or mineral state, when it is unfitted for slaking; also *Chaux caustique*; Ger. *lebendiger Kalk*—literally “living lime.”

Quirk, in Mouldings. The recessed or sunk part, or groove placed at the side of a bead or rounded moulding, between it and the solid wood on which the bead is formed, or the piece out of which it is made. The top or upper part of the moulding is flush, or on the same plane as the general surface to which the moulding is attached; and the depth of the groove or recessed part varies,—as a rule it is about the depth of the centre of the bead. A “double quirk” is when the side as well as the top of the round moulding is recessed or grooved. Syn. Fr. *Couture*; Ger. *die Kante*; also *Kante zwischen Rinnen*—literally “the border or edge between two channels”—i.e. grooves.

Quirked Bead, in Mouldings. A half-round bead with a narrow, sunk, deep recess between it and the flat part—as, say, of an architrave. The ovolo and ogee mouldings are also sometimes quirked.

Quoins, in Masonry. The square or rectangular stones built in at the corners of a building. They may show only in front

elevation, or they may be disposed to show at the return or corner next adjoining. They are generally disposed in the way

known as "longs and shorts," a short one between two long ones. Syn. Fr. *Angle coin*, or simply *Angle*; Ger. *die Kante* or *Ecke*.

R

Rabbet (see Rebate): **Rabbeting**, in *Carpentry*. Scarfing (see Scarf) or rebating timbers together. Syn. Fr. *Assemblage à mibois*—i.e. half depth of wood; Ger. *Aufblattung*; also *Einfalzung*—literally "infoling."

Ragstone, sometimes called "Kentish Rag," in *Masonry*. A method of forming walls in which the stones are thin, generally about the thickness of a brick, and of varying length. Although the stones are laid usually on their beds or faces, and horizontally, they are frequently disposed at all angles, according to the notions of the builder—irregularity, both in size and disposition of the stones, being the feature of this method of building.

Rack, in *Joinery*. An arrangement of parts of timber generally fixed to and projecting from a wall, as a clothes-rack, from which articles can be suspended, or in which they may be placed one above the other, as in a plate-rack or bottle-rack. Syn. Fr. for a rack with pegs, as a clothes-rack, *Tringle*. Ger. *der Rechen*.

Rafters, in *Carpentry*. The timbers in a roof-truss which are placed at an angle or oblique to the walls, forming the sloping sides of the roof-covering of a building. Rafters are divided into three classes—(1) "principal rafters," (2) "common rafters," and (3) "hip-rafters" (see Roof). The principal rafters are those which are connected directly with the "king-post" in king-post trusses and the "queen-post" in queen-post trusses, and with the tie-beams. Syn. Fr. *Arbalétriers*—pron. ahr-bah-lay-tree-eh; Ger. *die Sparren*. The common rafters are those which carry the slate boarding or tile spars or battens, and are supported by the "purlins" (which see), these latter being supported by the principal rafters. Syn. Fr. *Chevrans*; Ger. *Sparren*, or more definitely *Pfostensparren*. Hip rafters are those placed at the angles of a building in cases where the gable-formed roof (see Gable) is not employed (see Hip-roof), but where the ends of the roof are oblique to the walls, sloping in at each side to and meeting the central ridge-pole. Syn. Fr. *Arêtiers* or *Chevrans de croupe*; also *Arêtes d'un comble*; Ger. *Ecksparren*; also *Schiftsparren* (from *schiften*, to join—that is, joining the corners of the roof with the central part; also *Walm*—from *Walm* [valm], a slope or sloping).

Rails, in *Joinery*. The horizontal pieces or members of a framing, as of a door, connecting the side or vertical pieces, which

latter are called the "styles" (which see), and into which the rails are tenoned. The rails of a door are known as the lower and upper rail, the middle rail being the "lock rail," as that to which the lock is secured in the case of a "rim lock," or into which it is mortised in the case of a "mortise lock." The rail of a stair is called the "handrail," as it is grasped for the purpose of protection in ascending and descending by the hand. It surmounts the balusters or vertical rails. Syn. Fr. for the "rail of a door," *Traverse d'une porte encadrée*; Ger. *Querfries einer Thür*. For the "handrail of a stair," Fr. *Garde corps* or *Garde fou*—the latter literally the guard or protection of an intoxicated or mentally weak person; Ger. *Brustwehr*—literally "a breast defence," or defence breast high, also *Treppengeländer*.

Railing, in *Construction*. The pieces put up to enclose an open space, or to guard from falling into deep or dangerous places, as the railing which separates the areas of houses from the pavement of a street. Generally the railing is made of iron, consisting of vertical pieces an inch square in section or thereabouts, leaded into a flat curbstone, and connected together by a flat connecting bar running horizontally along the whole length of railing. The upper terminations of the rails are either simply pointed, or ornamented with some decorative design. Railing is sometimes made of timber, each piece or rail being separated from its neighbour some distance, and the whole being connected together by a horizontal straining piece. When the enclosure is of timber, flat boards are sometimes employed, in which case the boards are placed closely edge to edge, so that all view of the interior space is lost. In this case the term "paling" is employed to indicate the arrangement. Syn. Fr. and Ger. same as in Rail: see above for Handrail.

Raise, in *Building Construction*. A term used to indicate the operation of erecting a structure, a synonym for which is "run up." Syn. Fr. for "to raise or run up a building," *Donner l'exhaussement*; Ger. *Abhöhen*. Syn. Fr. for "to raise in architecture," a term equivalent to increasing a part, *Elever*, *Exhausser*; Ger. *Überhöhen*. Syn. Fr. for "to raise or run up a wall," *Rehausser un mur*; Ger. *eine Mauer höher bau*. Syn. Fr. for "to raise or run up timber or woodwork," *Monter une charpente or un toit*; Ger. *Holzwerk aufbringen*. Syn. Fr. for "to raise a part, as a projecting moulding, by a colour, in painting, contrasting with the ground or

general tone or tint of colour," *Rechamper avec une couleur*; Ger. mit Farben aus dem Grunde hervorheben. Syn. Fr. for "raised work in decoration or in hammered iron-work," *Ouvrage martelé*; Ger. *Hammerarbeit*. Syn. Fr. for "raised work" generally, *Exhaussé*; Ger. *erhöhte Arbeit*.

Raiser, in *Joinery*. A term sometimes, though but rarely, used as synonymous with "Riser" (which see).

Raising, in *Building Construction*. The act of elevating or running up a structure. Syn. Fr. for "raising of a wall," *Élévation d'un mur*; Ger. *Aufhöhung des Mauerwerks*. Syn. Fr. for "raising of the centre of an arch," *Levage* (lifting) *d'un cintre*; Ger. *Aufstellung des Wölbgerüsts*. Syn. Fr. for the "raising of timber-work," *Levage d'un toit* or *d'une charpente*; Ger. *Richten des Holzwerks*.

Raising Pieces, in *Carpentry*. The pieces of timber used under the beams on which they rest, and over the puncheons of a timber framing.

Raising Plates. The wall-plates or pieces of timber on which a roof-truss is raised or rests.

Rake, in *Building Construction*. A term used to indicate the position of one piece to another when one is at an angle or oblique to the plane of the other; the angular or sloping piece is then said to rake with the other. Syn. Fr. *Pièce en pente* or *en oblique*; Ger. *abschüssiges Werk*.

Raking Moulding, in *Masonry and Joinery*. A moulding which runs obliquely to the horizontal moulding. The point of junction of the members of the two mouldings forms, when viewed in profile, a projecting angular point.

Ram, in *Foundation Work*, etc. To compress soil or clay, in puddling (see Puddling) and foundation work, forcibly by the raising and letting drop of a heavy piece of timber by manual labour. The force of the impact or blow due to the gravity or weight of the timber is increased by the workman exerting his physical force in pressing down the piece or increasing its velocity. The piece of timber employed is called the "rammer," and it is composed of a piece three or four feet long, generally circular in section, provided with projecting pins or handles by which it is lifted, the lower end being usually provided with an iron shoe, which performs the double office of adding weight to the rammer and protecting the wood from abrasion and splitting when coming into contact with hard substances, as in ramming down paving stones. Syn. Fr. for "ram," *Pilon*—pron. pee-lon; Ger. *Handrammer*—pron. hant-rahm-merr. Syn. Fr. for "paving rammer," *Dresseur*—pron. dres-seuhr; Ger. *der Ebner*—pron. ayb-nerr; also *Planirer*—pron. plah-neer-err. Syn. Fr. for "ramming,"

Damage—pron. dah-mahj; also *Pilonage*—pron. pee-loh-nahj; Ger. *Planiren*—pron. plah-neer-enn; also *Stampfen*; also *Feststampfen*.

Ramp, in *Joinery*. The term used to indicate the concavity in the line of the handrail of a stair necessitated by the sudden rise of the steps, as at a landing place, the difference between the levels being adjusted by a curved piece, so as to preserve the continuity of the hand surface of rail, in place of by rectangular adjustment. Syn. Fr. *Glacis* or *Caie*; Ger. *Rampe*—pron. ram-pay; also *Ausfahrt*; also *Abhang*.

Rampant Arch, in *Masonry and Brickwork*. An arch which springs from inclined or sloping abutments.

Random Courses, in *Masonry*. Courses or successive layers of stones which are unequal in respect of their distances from one another, arising from the unequal depths of the stones. It is chiefly met with in coursed rubble work, being, as a rule, never practised in ashlar work.

Rank Set, in *Tools*. A term used to indicate that the "iron" or cutting part of a joiner's plane projects so much from the face of sole that it cuts too deeply.

Rasp, in *Tools*. A species of file, with the surface so cut that curved cutting edges are distributed regularly over its surface, which grind or rasp down the face of soft materials, such as wood, against which the rasp is worked to and fro by hand. When used by joiners it is to give a comparatively smooth surface to wood, preparatory to a smooth and finished surface given by a fine-cut file and glass- or sand-paper. A file is distinguished from a rasp by having its cutting edges produced by the cutting of lines oblique to its length, but all parallel to one another—these crossed by similar lines, but cut in an opposite direction—thus giving a series of triangular-shaped protuberances with fine cutting edges. In a rasp the cutting edges are, so to say, dotted or spotted over the surfaces at greater or less distances from each other according to the roughness or fineness of the tool. Der. The word rasp is from the Old French *rasper*, to scrape, or from the Latin *radere*, *rasum*, to scrape or rub away. Syn. Fr. *Râpe*; also *Lime mordante*; Ger. *Raspe* or *Raspel*. Syn. Fr. for "to rasp," *Râper*—pron. rah-pay; also *Chapeler*—pron. shah-pelay—or *Travailler avec une râpe*; Ger. *Abraspeln* or *mit einer Raspel arbeiten*—pron. mit i-nerr rass-pel ahr-bite-enn.

Rebate, in *Joinery*. A part cut away from the edge of a piece of wood—which piece is generally designated as "stuff"—forming a ledge. The part cut out is rectangular in section, so that the inner side or edge of the ledge next to the solid or uncut part of the stuff is at right angles to the

flat-lying or horizontal part. It is equivalent to what is called the "half-lap joint" in carpentry, and is used for a purpose identical—namely, the junction of two pieces, as boards, edge to edge, so that when the sides of the "rebates" on the edges of the boards are placed together the faces or surfaces of the two boards are flush. This is secured by making the depth of the rebate exactly equal to half the full depth or thickness of the board or stuff. The width of the rebate may vary according to the purpose required; it is often made equal to the depth, but when it is greater than this, it affords a better bearing and nailing or gluing surface, and gives a more secure joint. Parts are also rebated for other purposes, as where the meeting edges of two boards have to give the two surfaces flush faced. Syn. Fr. *Bandelet*—pron. bahn-del-lay; also *Listel*, or *Filet*—pron. fee-lay; also *Listeau*—pron. leece-toh; also *Reglet*—pron. reg-lay; also *Feuillure*—pron. fueh-eel-yuehr; Ger. *Bändchen*—pron. bendt-chenn; also *Riemen*, *Riefel*, and *Plättchen*. Syn. Fr. for "to rebate," *Faire une feuillure*; also *Feuiller*—pron. fuehl-yea; Ger. *Anriefeln*, *Anfinden*; also *Holzplättchen arbeiten*. Syn. Fr. for "rebating," *Mi-bois, Assemblage à demi-bois*; Ger. *Aufplatten*; also *Ueberschneiden*—pron. ueb-err-shnide-enn. Syn. Fr. for "rebated joint" in joinery, *Joint-saillant*—pron. joahn-sahl-yahn; Ger. *Stoss* (edge) *mit Ueberschneidung* or *Ueberplättchen*. Syn. Fr. for "rebated joint" in carpentry (half-lap scarf joint), *Ecart double*—pron. eh-kahr dooh-bel; Ger. *Langplättchen, Doppelfalz*—pron. dop-pell-fahlts—literally "a double groove." The term *Rabbet* is often used as synonymous with rebate. The term may be a corruption of "rebut," which comes from *re* and *butt*, or *Ital. buttare*, to drive back. Syn. Fr. *Chamfrein*—pron. shahm-fraihn (see Rebate above); Ger. *Falz* (see also Rebate).

Rebate Plane, in Tools. A tool the working face and "iron"—i.e. cutting tool—of which are so shaped that it cuts out the groove or rebate on the edge of the stuff along which it is worked. Syn. Fr. *Rabot* (rah-boh) *feuilleret*—pron. fuehl-yerr-eh; also *Feuilleret Guillaume*—pron. gee-yohm (*g* as in *go*).

Recessed Arch, in Architecture. The arrangement of two or more arches of different radii one within the other is so called. The outer arch, in face of wall, is of course the largest, the other arches being, as it were, bound to it by the mouldings of gradually decreasing radii. Der. The term recess is from the Latin *recessus* (from *re*, again, and *cedere*, to go or yield). Syn. Fr. *Engoujure*—pron. ahh-gooch-jeuhre; Ger. *die runde Nath*; also *Zurücktreten*—literally "step back" or "tread back." Syn. Fr. for

the part of a building front which recedes from the general face, *Renforcement* (rahn-fonce-mahn) *d'un façade*—pron. deuhn faw-sahd; Ger. *Rücklage*—pron. roo-eek-lah-geh—literally "back site" or "place."

Reduce, in Architectural Drawing. To draw a plan, etc., to a smaller scale than that given in the original or copy. This is done by the aid of the "proportional compasses," but more accurately by taking the measurements from the scale of the copy or original, and then re-taking the like measurements from the smaller scale to which the reduction or reduced copy is made. When the drawing to be reduced is very elaborate, the reduction can be most quickly made, and with the utmost accuracy of detail, by means of the photographic process. Der. The word *reduce* comes from the Latin *re*, again, and *ducere*, to lead. Syn. Fr. *Reduire un dessin*—pron. red-dweerr uhn dess-aihn; Ger. *eine Zeichnung* or *einen Risz reduciren*, to reduce a sketch.

Reeds, or Reeding, in Architecture. Small round or half-round beads placed close together and parallel to each other, forming a flat corrugated surface, projecting from a flat surface, as a dado, or let into or sunk in same. Syn. Fr. for reed, *Baguette*—pron. bah-gett; for reeds or reeding, *Assemblage de baguettes*; Ger. *die Rundstäbe*—literally "round (half-round) stakes"; for reeds or reeding, *Rundstäbe dicht an einander*—literally "round stakes close together."

Regrating, in Masonry. Dragging, tooling over, or rubbing down the surface of old stones, to give them the appearance of being new and fresh. Der. From the French *gratter*, to rub or scrape down; regrating is rubbing over again. Syn. Fr. for "to regrade a stone," *Regratter une pierre*; for a wall, *un Mur*; also *Bretteleur un mur* (*bretteleur*, to tool)—pron. bret-teh-lay. Syn. Ger. for "to regrade," *Aufratschen* (from *ratschen*, to scrape)—pron. raht-shenn; also *Aufspitzen* (from *spitzen*, to point with a hammer-pick or tool); for "to regrade a stone," *einen Stein aufratschen*; for a wall, *eine Mauer*.

Rejointing, in Masonry and Brickwork. Renewing the joints in old-built walls. In this the old mortar is scraped out and the new mortar or cement inserted and tooled off fair externally. In brickwork the operation is more frequently termed repointing (see Pointing). Syn. Fr. for "to rejoin a wall," *Ferrer*, to calk—the operation being considered similar to calking a joint in shipbuilding; also *Rejoindre un mur*; Ger. *eine Mauer mit Cement ausfassen*.

Relay, To, in Construction, as in the renewing of a pavement. Syn. Fr. *Reposer*; also *Remanier*—pron. reh-mah-neeay; Ger. *Umlegen*—pron. oohm-lay-genn.

Relaying, in Construction. Syn. Fr. *Re-*

posement, Remaniement—pron. reuh-mann-ee-mang; Ger. *das Umlegen*.

Relief, in Stone Cutting, etc. A term used to denote that a point projects or is raised from the surface of another. It is usually applied to decorative or ornamental work. Syn. Fr. *Relief* or *Ouvrage en bosse* (*bosse*, a knob, a lump, etc.; Ger. *Relief*—pron. reuhl-yeff; Syn. Fr. for low relief, *Bas-relief*—pron. bah-reuhl-yeff; Ger. *Basrelief*; also *flaches Relief* (from *flach*, plane or level in surface).

Relieve, in Painting. To reduce a colour so as to soften it or to make it harmonise better with another colour. *Der.* The word *relieve* comes from the Latin *relevare* or the French *relever*, to lift up. Syn. Fr. *Adoucir l'effet d'une couleur*—pron. ah-dooce-earr leff-eh duehne cool-euhr; Ger. *die Farbe mildern*—pron. dee fahr-beh mill-derrn—literally “to make the colour mild.”

Relieving Arch, in Masonry and Brick-work. The arch, generally segmental in form, thrown over a brestsummer or bressummer beam or lintel which spans an opening, the office of which is to relieve the beam from the superincumbent wall above. A synonym for the term is *camber arch* (see *Camber*).

Relievo, or (in) Relief, in Carving or Sculpture. A term used to denote a carved subject which projects beyond the face of the body to which it is attached. Relief is of three kinds: Alto-relievo, or high projection; Mezzo-relievo (*medz-oh*), or middle or mean relief, between alto- and Basso-relievo or low projection. Syn. Fr. *Relief*—pron. ray-lee-ef; also *Sursage en bosse*—pron. suehr-sajh ahn boss; Ger. *das Relief*—pron. dass ray-leef.

Remove, in Construction. As materials, a wall or a building, to take away or down, and carry the materials to some other position or locality. *Der.* Our word comes from the Latin *removere*, and this from *re*, again, and *movere*, to move. Syn. Fr. *Enlever*—pron. ahn-leu-vay; also *Remuer*—pron. eh-mue-ay; Ger. *Räumen*—pron. roy-menn, also *Wegräumen*.

Render and Set, in Plastering. Plaster work in two coats upon laths, the synonym for which is “set work.” Syn. Fr. *Crépir et enduire*—pron. kray-peer ay ang-dweer (*crépir*, to rough-cast, *enduire*, to lay or spread over); also *Gobeter et enduire*—pron. goh-be-tay, to point; Ger. *Bewerfen* “Rendered” is the term for plaster-work, one coat and rough. Syn. Fr. for “rendering,” *Gobetage*; Ger. *erste Putzlege* (*putzen*, to dress, to ornament).

Rendered, Floated and Set, in Plastering. Work in which three coats are given. Syn. Fr. *Enduit en trois couches*—literally “laid on in three beds or layers”; Ger. *Dreischichtenputz*. “Rendered and floated” is two-coat work; Syn. Fr. *En deux couches*;

Ger. *Zweischichtenputz* (*Schicht*, a layer or bed).

Renew, in Construction, as in renewing timber-work which has become decayed or decaying, unsafe. Syn. Fr. *Changer*, to change—pron. shahn-jay; also *Renouveler*—pron. reuh-noo-vel-lay; Ger. *Erneuern*—pron. err-noy-ern.

Renovation, in Architecture. A term chiefly employed in connection with the “restoration” of decayed or decaying structures, chiefly churches and ecclesiastical buildings. Renovating, although considered as synonymous with renewing, is not always, if, indeed, ever, successful in giving back that which has been lost. The spirit in which the work was originally conceived, and the way in which it was at first done, can never be renewed or restored. The purposes of utility may be served and the views of economy met by the renovation of old buildings, but the claims of a high and correct æsthetic art—never. The term “renovation” is often employed in ordinary building construction as synonymous with renewing. *Der.* The word *renovate* comes from the Latin *re*, again, and *novare*, to make new. Syn. Fr. *Renovation*—pron. reuh-no-vah-see-onn; Ger. *Erneuerung*—pron. err-noy-err-oong.

Rent, in Building and Materials. A term equivalent to crack, as the crack in a wall, generally due to unequal settlement and to over-weights placed upon it, or a fissure or flaw in timber. *Der.* From the French *rendu* (*rang-duuh*), over-spent; more certainly from the Old English *rendan*, to cut or tear asunder. Syn. Fr. *Fessure*—pron. fess-uehr; also *Filure*—pron. fee-leuhrr; Ger. *Ansprung*—pron. sproong; also *Spalt*.

Repairing, in Construction. Often considered as synonymous with renewing; but the term is more applicable to the overhauling of parts of a building, in which they are so treated as, while set or put right, they are not wholly taken out and replaced by altogether new parts. In repairing the best is made of the old parts; in renewing they are taken away and replaced by other and sound parts. *Der.* From the Latin *re*, again, and *parare*, to prepare; or from the French *reparer*, to make new or repair. Syn. Fr. *Repanage*—pron. reuh-pah-nahj; Ger. *Ausbessern*—literally “making better,” which conveys an accurate idea of what repairing is.

Reredos, in Church Architecture. The screen or carved woodwork (or in stone) placed sometimes behind the altar, but generally separating the chancel from the body of the church.

Reservoir, in Construction. A receptacle or enclosed space for the collection or retention of water, which is supplied to it by natural springs, by the watershed or

drainage water of surrounding soil, or by pumping or artificial means. The reservoir or water space may be constructed of walls surrounding the whole area to be enclosed, or (which is the most natural and easily constructed) an embankment may be thrown across a convenient part of a valley, thus catching the water on its upper side, and retaining it in the valley behind to a depth proportionate to the height of the retaining wall or embankment. Syn. Fr. *Réservoir*—pron. ray-zairr-vwahr; Ger. *Wasserbehälter*—pron. vass-err-beh-hell-terr.

Retaining Wall, in Masonry and Brick-work. The name given to a wall built against a mass of earth, as at the sides of a road cutting or against the side of a rising ground. The object of the wall is to keep up or "retain" in position the mass of the earth or soil behind it. Generally the wall is not vertical, as in ordinary cases, but placed at an angle to, or slopes inwards from, its base. Apertures have to be made in its face at intervals, leading from its front, face, or exterior surface to the soil or earth behind, for the purpose of leading the surplus or drainage water of the soil and preventing it from accumulating behind the wall, where it would only be a source of danger by its pressure. Der. The word "retain" is from the Latin *re*, again, and *tenere*, to hold back, to keep on. Syn. Fr. *Mur de soulèvement*—literally "a sustaining wall"—pron. muehr deuh soo-lave-mahn; Ger. *die Futtermauer*—literally "a lining wall"—pron. foot-err-mow-err; also *Schutzmauer*—literally "a protecting wall" or "guard wall"—pron. shootts-mow-err.

Reticulated Work, in Masonry. Walls built with the stones placed so as to form with their outlines a net-like surface or series of lines—the stones being square, but disposed angularly or lozenge-shaped in form. Der. From the Latin *reticulatum opus*, net-work. Syn. Fr. *Mur maillée*, or simply *Maillée*—pron. mahl-yeh; Ger. *netzförmiges Mauerwerk*—literally "net-formed" or "shaped wall-work."

Return, in Joinery, Masonry, and Brick-work—as of a wall. When two pieces of timber are placed at an angle to each other, and are therefore in contrary directions, the one piece is said to return into the other. In walls, when one is at an angle to the other, generally at a right angle, the point of junction is said to be the return. Der. The word return is the Latin prefix *re*, again, and our word turn; or it may be from the French *retourner*—pron. ray-toohr-nay. Syn. Fr. *Retour*—pron. reuh-toohr; Ger. *Nebenseite*—pron. nay-benn-zy-teh; also *Eckenseite*—literally "the near" or "neighbour side," "the corner" or "angle side." Syn. Fr. for "return of a wall," *Mur en retour*—pron. muehr ahn reuh-toorr;

also *Mur en aile*—literally "a wall in wing" or "wing wall"; Ger. *Flügelmauer*—literally "a wing wall"—pron. flueh-gell-mow-err.

Reveals (sometimes termed **Revels**), in *Building*. The flat margin, vertical at the sides, of a window or recessed opening, between the outside surface of the wall and the outside face of window. The breadth or depth of the reveal decides the depth of the recess, or amount to which the face of window is sunk below the face of outside wall. The Scottish term is "rybate" or "rybat." Syn. Fr. *Ecoinçon d'une fenêtre*—literally "the quoining (or cornering) of a window"; Ger. *Eckstein eines Fensters*—literally "the edge stone."

Rib, in Carpentry. A curved piece of timber, a "curb rib." The word rib is identical in spelling and meaning with the Old English word. Syn. Fr. *Lierne ronde*—pron. lee-ern rong-day; Ger. *gebogene Rippe*. Syn. Fr. for "rib of a dome," *Côte d'un dôme*—pron. koht doohn dohm; Ger. *Kuppelrippe*—pron. koop-pell-rip-peh. Syn. Fr. for "intermediate rib," *Nervure intermédiaire*—pron. nairr-vuehr ahn-terr-may-dee-air; Ger. *Streberippe* (from *streben*, to strive upward, to soar). Syn. Fr. for "rib vaulting," *Voûte à nervure*—pron. voot ah nairr-vuehr; Ger. *Gewölberippe*—pron. geh-voehl-beh-rip-pe. Syn. Fr. for "corbel rib of stone," *Tas de charge* or *Pierre de charge*—pron. tah deuh sharrijh; Ger. *Kragstein* (corbel stone)—pron. krahg-stine.

Ribs, in Architecture. In ground roofs or vaults, the mouldings which project from the surface are so called. The term in construction generally is applied to any part projecting from, or secured to, a surface. In Gothic architecture the ribs play a most important part, not only as affording scope for rich and varied design in the mouldings which form their surface and give them their profile or section, but as really constituting the principal feature in the construction. They carry in many cases the roof, the vault lying upon them simply, as remarked by the great authority Mr. Willis, as a mere "shell." Der. From the German *Rippe*. Syn. Fr. *Nervures*; Ger. *Rippen*—pron. rip-penn.

Ribs of a Roof, in Carpentry. A term employed in some districts to denote the "purlins" (which see).

Ridge, in Carpentry. The upper part of a roof, running along the apex of the triangular surface. The "ridge pole" is that member of a roof-truss placed at the highest part, and consists of a flat member much deeper or broader than it is thick, against the sides of which the upper end of the common rafters butt. The ridge pole is carried by the king-post head in a king-post truss; in a queen-post truss it is carried, so

to say, by the upper ends of the common rafters. *Der.* The word ridge is from the Old English *rig*, the upper part or back of an object, as of a hill. Syn. Fr. *Faîte*; Ger. *Firste*—pron. feer-steh; also *Giebelrücken*—pron. gee-bell-ruek-ken. Syn. Fr. for "ridge piece," *Patin*—pron. pah-taihn; also *Faitage*—pron. fay-tahj; Ger. *Dachspitze*—literally "the roof point"—pron. dach-spit-seh. Syn. Fr. for "ridge tile," *Enfaitage*—pron. ahn-fay-tahj; also *Tuilefaîtière*—pron. tweel-fay-tee-airr; Ger. *Firsteziegel*—pron. feer-steh-tzee-gel. Syn. Fr. for "ridge pole," *Faitière*; Ger. *Firstebalken*—literally "ridge beam." Syn. Fr. for "ridging," *Faitage*; Ger. *Verfirstung*—pron. fer-feerst-oong.

Rise, in Construction. A term used generally to indicate the increase of height in a piece of construction, as the rise of a wall; or sometimes to indicate the extent of elevation, as the rise of a roof, as of a slope or height of so much, in measurement; also, as in the case of an arch, the rise of the arch indicating its height. *Der.* Our word rise comes from the Old English *risan*, to go up, to move from a low to a high position. Syn. Fr. *Hauteur*—literally "height"—pron. ho-teuhrr; Ger. *Höhe*—pron. hoeh-eh. Syn. Fr. for "to rise," *Aller au levage*—literally "to go to the lift"—pron. ahl-ay oh leh-vahj; Ger. *Aufstehen*—pron. owf-stay-enn. Syn. Fr. for "rising," *Montée*—pron. maun-tay; Ger. *Auffahrt*. Syn. Fr. for "rising of an arch," *Monter d'un arc*—pron. maun-tay duhn arrk; Ger. *Pfeilerhöhe*—pron. pfi-lerr-hoe-eh.

Riser, in Joinery. A term used to indicate that part of the step of a stair which is vertical, or what may be called the front or face board of it, as distinguished from the flat part or horizontal board on which the foot rests in ascending the stair, and which is called the "tread" (which see). The office of the "riser" is to support the tread. Syn. Fr. *Montée de la marche*—pron. maun-tay deuh lah marrsh; Ger. *Treppenhöhe*—pron. trep-penn-hoe-eh.

Road. The strip of land the surface of which is prepared specially in one or other of several modes of construction, by which communication is facilitated between one part of the land or district and another on which buildings are erected. The road is distinguished from a pathway by being broader, and by having its surface constructed or laid in a way more costly and elaborate, fitted to resist the pressure and wear-and-tear of the carriage or cart or horse traffic for which the road is intended; the pathway being designed for the use of foot passengers only—hence called generally the footpath. Roads in suburban and rural districts are generally less in width than those in the immediate neighbourhood of towns; and in those where the lines of houses

are continuous, the population dense, and the business traffic heavy, they assume the form of streets, and demand a mode of construction altogether adapted to the heavier wear-and-tear to which they are subjected. Roads in purely rural districts are, in the principal routes, comparatively narrow—capable generally of allowing carriages to pass and repass easily, but in the less frequented parts of width but little greater than that necessary for the passage of one loaded cart or waggon. Such roads are generally called "accommodation roads," designed for the use of farms or for isolated houses. Roads in districts where the traffic is considerable are skirted by two pathways, one on each side; in rural or suburban districts, where the traffic is small, by one only. The pathway is generally raised a little above the carriage roadway, and divided from it by a curb and a covered drain or an open water-channel for carrying off the drainage water of the road. To facilitate this drainage, some road constructors make the surface convex, sloping from the centre to the side, at which a drain or channel is placed to carry off the drainage. Other constructors make the road surface perfectly or nearly flat, so as to make the wear-and-tear uniform over the whole width of road. In laying out roads, the route in new building districts should be chosen which will open up the best building sites, possess as few curves and those of as large a radius as possible, and be level, or if inclines or gradients are necessary, these should be as light and easy as possible. The road or working surface should be placed on the land or soil surface, which is properly prepared to receive it. The road surface is made in a variety of ways, but the principal method employed is that known as Macadamising (which see). Road surfaces are also often paved with small stone blocks, of which granite is the best. Excellent roads are made in great lengths on the Continent of bricks—which method, both in original construction and in keeping in good order, might be introduced into rural and suburban districts in this country with advantage. Roads in rural and suburban districts are bounded by wood or wire fencing; but the best, at least the most beautiful of boundaries, is the quickset or thorn hedge. *Der.* The word road comes from the Old English *rad*, a place for riding (*ridan*, to ride), as if the other ways of communication were only for foot traffic. Syn. Fr. for road generally, *Chaussée*—pron. show-say; *Chemin*—pron. sheu-maihn; *Route*—pron. root; also *Voie*—pron. vwah; Ger. *der Weg*—pron. dare vague; also *Land- or Heerstrasse*—pron. lant or hairr-strah-seh; also *Strasse* (properly this is street). Syn. Fr. for "roadway,"

Chaussée; Ger. *Fahrweg*. Syn. Fr. for "roadway with convex or saddle-back surface," *Chaussée convexe* (or *bombée*—pron. bomb-bay); Ger. *gewölbter Weg*, an arched or vaulted road—pron. geh-voehlb-terr vague. Syn. Fr. for "paved road," *Route* (or *Chemin pavé*—pron. pah-vay; Ger. *gepflasterter Weg*—pron. geh-pflass-terr-terr. Syn. Fr. for "Macadamised road," *Route* or *Chemin à chaussée macadamisée*—pron. mah-cah-dah-meeze-ay. Syn. Fr. for "road with metal," or "road metal"—that is, covered with broken stones—*Chaussée empierrée*—that is, a stoned road—pron. ahm-pee-air-eh; Ger. *Weg mit Bruchstein*—pron. vague mit brooch-stine. Syn. Fr. for "rural or parish road," *Chaussée communale*—pron. koh-mune-all; Ger. *Nebenweg*. Syn. Fr. for "road maker," *Constructeur des chemins* or *chaussées*—pron. kon-struek-teuhrr; Ger. *der Wegbauer*—literally "road builder." Syn. Fr. for "road construction," *Construction des routes*—pron. kon-struek-tsee-ohn day root; Ger. *Wegbau*—literally "road building," "Road roller," a heavy roller of cast iron dragged to and fro by manual or horse labour over the surface, to consolidate it. Syn. Fr. *Route rouleau*—pron. rooh-loh; Ger. *Wegwalze*—pron. vay-geh-vallt-seh. Syn. Fr. for "steam road roller," *Rouleau machine-à-vapeur*—pron. vah-peuhrr. "Road scraper," a machine by which a considerable width of road surface is cleared of the accumulated mud made by the traffic. Syn. Fr. *Bord du chemin*—pron. bohrr dueh sheu-maing; Ger. *Wegkratzeisen*—literally "an iron scraper" or "scratcher."

Rock. A term often used as synonymous with stone, but properly indicating the original or natural condition in which stone exists in mass in the earth's crust. So that rocks may be considered as the source from which stone is obtained in a condition fitted for constructive work, as that of the mason—rock the primary, stone the secondary or prepared body. Der. From the Old English *roc*, a large mass of stone. Syn. Fr. *Roche*—pron. rosh; also *Rocher*—pron. rosh-eh; Ger. *Felsen*; also *Stein*; also *Klippe*—pron. fell-zenn, stine, clip-peh. Syn. Fr. for "solid rock," *Roche compacte*; Ger. *fester Felsen*—pron. fess-terr-fell-senn. Syn. Fr. for "rockwork," in gardening, *Roche rustique*—pron. rosh rueh-steek, or *Ouvrage en roche rustique*; Ger. *unbehauenes Felsenwerk*—that is, unhewn or natural rockwork—pron. oon-beh-how-enn-ess fell-zenn-vairrk. Syn. Fr. for "rockwork," in building, in which the stone is worked with a rough surface, *Congélation* (as if frosted)—pron. kon-jay-lah-seeon; Ger. *Felsenrococostyl*. Syn. Fr. for "rockwork" in gardening, built up as grotto-work, *Rocaille*—pron. roh-kyle; for "rocky," as a soil in foundation work, full of

stones, or with rocks interspersed, *Plein de rocher*, or *de roche*—pron. plaihnh deh rosh-eh, deh rosh; Ger. *Felsig*—pron. fell-zig; also *Felsenhart*—pron. fell-zen-hart. Syn. Fr. for "rocky soil," *Terre en roche*—pron. tairr ahn rosh; Ger. *Grundfelsen*—pron. groond-fell-zen.

Rod, in Construction. A long piece of wood or of iron, of small section, either square, round, or polygonal, used for a variety of purposes. Der. The word is the same in Old English, signifying a thin, tall rod or stick of timber. Syn. Fr. *Verge*—pron. vairrh; also *Tige*—pron. teej; Ger. *Ruthe*—pron. roo-teh; also *die Stange*—pron. dee stang-eh.

Rod Iron. Wrought iron rolled into long lengths, square or round in section. Syn. Fr. *Fer à tringles*—pron. ferr ah trang-gell; Ger. *Leisteneisen*—pron. lice-tenn-ize-enn; also *Stangeneisen*—pron. stang-en-ize-enn.

Rod, Measuring. A long rod of a definite length, as so many either feet or yards, the lengths marked carefully off along its length, and figured or numbered for smaller divisions of the unit, as that of a foot. The first division, or that to the left, is marked off in inches. Syn. Fr. *Verge d'arpenteur*—i.e. rod of the measurer—pron. vairrh darr-pahn-tooohr; Ger. *Messruthe*—pron. mess-roo-teh.

Roll, as in road or garden-walk work, to go over the surface with a heavy roller. Der. From the French *rouler*, or German *rollen*; the word is connected with, or allied to, the Latin *rotula* or *rota*, a small wheel. Syn. Fr. *Rouler*—pron. roo-lay; Ger. *Rollen*—pron. roll- (like doll) en.

Roll, in Architecture. Sometimes used as synonymous with volute (which see), as if the scroll were formed by winding or rolling up a flat long strip, to form a continuously winding scroll, the edges of which, when seen in profile, have the appearance of a helical spring. Syn. Fr. *Volute* (voh-lueht), *Corne de bélier*—literally "ram's horn," the horns of this animal having frequently a helical twisted shape—pron. korn dueh bail-yeh; also *Hélice*—pron. hay-leece; Ger. *Schnörkel*, a scroll—pron. shnoerr-keil.

Roller, in Joinery. The roller of a window-blind. Or the implement used in compressing the surface of roads or pathways, or in gardening of lawns or grass-plots. Syn. Fr. *Rouleau*—pron. rooh-loh; Ger. *die Rolle*—pron. dee roll- (like doll) eh. Syn. Fr. for "roller of a window," *Rouleau d'une fenêtre*—pron. rooh-loh duehne fay-nay-terr; Ger. *die Fensterrolle*. Syn. Fr. for roller, for compressing the surface of roads ("road roller"), *Rouleau pour chemins* or *chaussées*; Ger. *Wegrolle*—pron. vaig-roll-eh. Syn. Fr. for "garden roller," *Rouleau pour le jardin*—pron. jharr-daihn; Ger. *Gartenrolle*—pron. garr-tenn-roll-eh. Syn. Fr. for "to roll," *Rouler*—pron. rooh-lay; Ger.

Rollen. Syn. Fr. for "rolling," as in road-making, *Plombage*—pron. plom-bajh; Ger. *Stampfen*.

Roll Moulding. A term often used as synonymous with a bead-torus or continuous moulding, rounded or circular in profile. Syn. Fr. *Moulure à rouleau*—pron. moo-leuhre ah rool-oh; Ger. *Rolleleistenwerk*—pron. roll-eh-lice-tenn-vairrk. Syn. Fr. for "roll moulding and fillet," synonymous with bead and fillet, *Moulure rouleau et filet*—pron. mooch-leuhre rool-oh eh fee-lay; Ger. *Rollkehlungen mit Bändchen*—pron. roll-kale-oong-enn mit baent-chenn. Syn. Fr. for "roll joint," *Tringle à toiture*—pron. traihn-gell ah twah-teuhre; also *Joint rouleau*—pron. jhwahn rool-oh; Ger. *Falzrolle*—pron. falts-roll-eh.

Roll Moulding, in Gothic Architecture. A moulding the profile of which shows the lower and upper parts or halves as rounded, in some forms a complete semicircle, but the upper of which is of larger diameter than the lower, terminating at, and forming a projection at, a line coincident with the diameter. The "roll and fillet" moulding possesses the same features as the "roll moulding," only, as its name indicates, it has a square-edged "fillet" in front, midway between the lower and upper.

Rolls, in Joinery. Pieces of wood or stuff, of section rectangular, but having frequently the upper side rounded, and sometimes semicircular. Rolls are used to cover the joint of two pieces, as boards or sheets of zinc or other covering for surfaces, lying edge to edge. The roll is nailed down lying on its flat side, and central to the joint below. Syn. Fr. *Bouzelet*—pron. boo-rel-lay—literally "a swelling" or "piece projecting from the general surface"; Ger. *Kopfleiste*—literally "a head band"—pron. koppf-lice-teh.

Romanesque Style, in Architecture. So called from the resemblance, in its general features, to the Roman style. The style, however, is known by other names, such as the Lombardic, Byzantine, and sometimes the Norman, with which it has much in common. The feature of the Roman style which constitutes what is most generally known as the Romanesque is what may be termed clumsy and rude—heaviness and massiveness being the general characteristic; so that while the features so familiar in the Roman style—as rounded arches, pillars or columns, entablature—are all represented in the Romanesque, they are low and massive to a degree which gives, as we have said, the idea of heaviness to the complete exclusion almost of anything like graceful or elegant proportion. Syn. Fr. *Style romanesque*—pron. steel roh-mah-nesk; Ger. *romanischer Baustyl*—pron. roh-mah-nish-err bough-steel.

Roman Style, in Architecture. The principal distinction between it and the Grecian

style is the use of the arch, which is its essentially distinctive feature, and which necessitates the employment of decorative and constructive details peculiar to the style. These details are of a bolder nature, giving greater projection to mouldings, etc., than is met with in the Grecian. In the sense of "orders" the Roman has two more than the Grecian, these being the "Tuscan" and the "Composite," which in effect are but mere variations of the Grecian Doric and Corinthian.

Roof, in Building. The framework of timber in domestic and general architecture—sometimes of iron in public buildings—which covers in the space enclosed by the walls, and which framework carries or sustains the materials known as the roof covering, as of slates, tiles, etc. The office of the roof is thus to protect the interior of the building from the effects of weather, and to complete the enclosure of the space. Roofs are of various kinds, including the simplest arrangement of timber in the case of small-spanned or narrow-spaced buildings up to the elaborate and carefully designed framing fitted to cover in wide spaces. There are two classes of roof framing: first, the "lean-to, or shed roof," and second, the "span roof." In the "lean-to," as its name indicates, the slope or incline of the roof is to one side only, the outer edge being lower than the upper, the joists resting at one end on the highest wall or back wall, the lower resting on the front or low wall. In the "span roof" the side walls on which the roof timbers rest are of equal height, the lower ends of the rafters or timbers resting on the walls, and their upper ends meeting at a point of greater or less height above the level of side or supporting walls; and which point is central to or midway between the side walls. This arrangement gives, consequently, a sloping surface to one side wall, at a definite angle, and a sloping surface to the other side in an opposite direction. The roof covering, as slates, is supported upon boards nailed to the rafters, which are placed at certain intervals along the walls, and in a direction at right angles to them. To give the greatest strength to a roof framing with the least amount of timber, and to convey its pressure upon the walls in the way in which they are best calculated to resist or sustain it, the principle of the "truss" is adopted (which see). The simplest form of roof truss—or, to use the simpler and more generally adopted term—of roof, is the "collar-beam" truss or roof. In this the rafters or inclined beams are prevented from spreading out at the feet or lower parts, and thrusting laterally upon the walls, by a flat thin beam or board secured at each end to the sides of the opposite rafters. The collar or collar beam

is generally placed at a height above the foot of the rafters, this height varying according to the designer's notions—generally at about one-third of the vertical rise or height of the truss. There are various modifications of the collar-beam truss or roof. The second class of roofs or of roof trusses is that known as the “king post.” In this the feet of the rafters are connected together, and supported by a cross-beam stretching across the space to be roofed in, and resting upon a wall-plate (which see) at the level of the upper part, from which the roof springs. This cross-beam is called the “tie-beam” (which see), as it ties or binds together the ends of the rafters. The feet of these are tenoned into the upper edge or face of the beam at intervals of a few feet along its length. These rafters are called the principal rafters, or principals (see Rafter, Principals). The principals carry on their upper face beams called “purlins” (which see), or beams which run at right angles to them—that is, parallel to the walls—and on the purlins are laid the “common rafters,” parallel to the principals, but with intervals between them much less than those of the principals. The office of these common rafters is to carry the boarding on which the slates, etc., are secured. The common rafters butt at their lower end against small beams called “pole plates” (which see), notched into the upper face and near the outer end of tie-beam; and they butt at their upper terminations against the ridge piece (which see). The principal rafters at their upper ends are supported or carried by vertical posts termed “king-posts” (which see), the lower ends of which are carried by and secured to the tie-beam in the centre of its span. The principal rafters are supported about the middle of their length, and at parts near the purlins, by beams placed diagonally or obliquely to the king-post, to the foot of which they are secured. These oblique beams are called “struts” or “braces” (see Strut; also Brace). The third class of roof trusses or roofs is the “queen-post truss.” In this the arrangements are much the same as in the “king-post roof”; but the king-post is dispensed with, and two vertical posts are given—one at each side of, and at a certain distance from, the centre of the tie-beam. This gives a space between the posts admitting of a room or free enclosed space in the centre of the truss. The fourth class of roof trusses is the “mansard” or “curb roof,” a truss specially designed to give room space within the truss—the lower part being formed of beams inclining inwards at a high angle, and crowned with the usual span roof and king-post truss. The sides of the apartment within the truss are thus sloping, but much less so than the sides of

attic rooms, where the queen-post truss is employed; and by using “ashlets” the sides of the room may be made vertical, or to a large extent so. Of the modifications of the ordinary forms of trusses—king-post and queen-post—the principal one is the “hip” or “hipped roof,” adapted for buildings which have no gables (which see). In this case the ends of the roof slope inwards from the end walls towards the ridge pole—which is thus shorter than in a gabled roof—while they slope inwards from the side walls to meet the ridge pole centrally between them. The “pavilion roof” is a hipped truss, but with the upper part truncated so as to give a flat space in the centre of the roof at top. A “flat or terrace roof” can scarcely be called a trussed roof, as in ordinary cases the space is spanned by rafters or beams placed horizontally. But in the best forms of flat roof a modification of the truss with very low rise is employed to carry the boarding which supports the lead or zinc with which the outer surface is covered. *Der*. The word roof comes from the Old English *hrof* or the Icelandic *rof*, remotely from the Greek *orophus* (from *erephein*, to cover over). Syn. Fr. for roof generally, *Toiture*—pron. twah-tuehrr; also *Comble*—pronounced almost as we pronounce the word, but with the first syllable having a slight nasal sound; also *Ferme*—pron. fairrm; Ger. *Dach*. Syn. Fr. for “lean-to, shed, or pent-house roof,” *Toit*; Ger. *Wetterdach*—pron. vet-terr-dach; also *Schussdach*—pron. shooss-dach. Syn. Fr. for “span roof,” *Comble* or *Toiture à deux pentes*—i.e. a roof with two sloping or inclined sides; also *à deux égouts*—i.e. a roof with two side eaves—pron. ah dooh pahnt, ah deuhze ai-goo. Another French synonym is *Toiture en d’os d’âne*—literally “an ass’s-back roof,” referring to the ribs of the animal, sloping on each side—pron. twaht-uehrr ahnn doh dahn; Ger. *Satteldach*—literally “a saddle roof,” the sides sloping, as in a saddle, from the centre—pron. zatt-ell-dach; also *Dach mit zwei Dachbalken im Dachstuhl*—i.e. a roof with two rafters inclined—pron. dach mit tsvy dach-ball-ken im dach-stool. Syn. Fr. for “king-post truss or roof,” *Ferme* or *Toiture à Comble à deux pentes avec une clef pendente*, or *avec un seul poinçon*—pron. ah-vekk euhn klay pahndahnt, ah-vekk euhn seul pwahn-song; Ger. *Dach mit einer Hängesäule*—i.e. a roof with a hanging pillar; also *Dach mit Giebelstuhl*—pron. dach mit ine-err heng-eh-zoy-leh, gee-bell-stool. Syn. Fr. for “hipped-roof,” *Toiture* or *Comble* or *Ferme en croupe*—pron. ahn kroop; Ger. *Walmdach*—i.e. a slope roof, sloping at ends as well as at sides—pron. valm-dach. Syn. Fr. for “mansard or curb roof,” *Toiture* or *Comble* or *Ferme Mansarde*—pron. mahn-sarrd; Ger. *Man-*

sarddach. Syn. Fr. for "garret or attic roof," *Comble brisé*—literally "a broken roof"—pron. breeze-eh; Ger. *Bruchdach*, also "a broken roof" which is sometimes used as a synonym for attic or garret roof. Syn. Fr. for "pavilion roof," *Comble*, *Toiture*, or *Ferme en pavillon*—pron. pah-veel-ong; Ger. *Zeltdach*—literally "a tent roof." Syn. Fr. for "flat or terrace roof," *Comble plat*—pron. plah; also *Comble surbaissé*—pron. suehr-bay-say; also *Comble écrasé*—literally "a crushed (in) roof"—pron. eh-krah-zay; Ger. *flaches Dach* (*flach*, flat, level)—pron. flaches dach. Syn. Fr. for "roofing," *Comble*; Ger. *Dachbindung*—literally "the roof binding"—pron. dach-bin-dooing. Syn. Fr. for "roof covering," *Couverture d'une toiture*—pron. koo-vair-tuehr; Ger. *Dachdeckung*, roof finishing or decking. Syn. Fr. for "iron roof," *Comble à toiture en fer*; Ger. *Eisendach*—pron. ize-enn-dach. Syn. Fr. for "fire-proof roof," *Toiture* or *Couverture apyre*—pron. ah-peer; Ger. *feuerfestes Dach*.

Room, in Domestic Architecture. A term very frequently employed as synonymous with chamber—as bedroom, bedchamber; as also with apartment, as "there are so many rooms in the house" (so many apartments). Der. From the Old English *rum*, a place set apart for any special purpose. One of the French synonyms is almost identical in spelling with our own word, a p and an e only being added, thus *appartement*—pron. ahp-pahr-teh-mahng. Another synonym is *Pièce*—pron. pea-ace; also *Chambre*—pron. shahm-berr; Ger. *die Stube*—literally "the stove-place" or the sitting-room in which a fireplace is placed—pron. stoo-beh; also *Kammer*—pron. kamm-err; also *das Zimmer*—pron. tsim-merr; also *das Gemach*—pron. geh-mach (the g hard); also *Gelass*—pron. gee-lass, a room or space. In these last two terms the "g" is sounded hard, as in our word *guess*, not as in *gelid*, where it is soft. Syn. Fr. for "drawing-room" of a house, *Salon*—pron. sah-lon; Ger. *der Saal*—pron. derr zahl; also *Gesellschaftszimmer* (from *Gesellschaft*, society, company, an association)—that is, "society chamber"—pron. geh-zell-shaffts-tsim-mer. Syn. Fr. for "bedchamber," *Chambre à coucher*—literally "apartment to sleep in"; Ger. *Schlafzimmer*—literally "sleep apartment"—pron. shlahf-tsim-merr.

Room, in Construction. A term used to indicate space, as there is space or room in the tenon of a beam for the end of a joist to enter into and to rest. Syn. Fr. *Espace-ment*—pron. ess-pass-mangt; also *Echappement* (from *échapper*, to escape from, as where a beam is readily or easily taken out of its seat)—pron. eh-shapp-mahn; also *Entredeux*—literally "between two" bodies or surfaces, as between the two sides of a tenon, which includes the idea of an en-

closing or receiving space; Ger. *Zwischenraum*—i.e. a between space or room—pron. tsvish-enn-rowm (ow as in cow).

Rope, in Construction, as in the hoisting rope used to lift materials with by the crab or winch, the rope to tie the parts of the scaffolding in brickwork. Der. From the Old English *rap*, a cord made strong by twining several smaller cords together. Syn. Fr. *Corde*—pron. korr-d; also for ropes, *Cordage*—pron. korr-dahj; Ger. *Leine*—pron. line-eh; also *Reep*, from which our word rope is derived; also *Seil*—pron. zile; also *Tau*, a cable or rope—pron. tou. Syn. Fr. for "tarred rope," *Corde goudronnée* (from *goudron*, tar)—pron. goo-dron-nay; also *Cordage noir*—literally "black ropes"—pron. nwahr; Ger. *Getheerteleine* (from *Theer*, tar, or *theeren*, to tar)—pron. geh-tare-tay-line-eh. Syn. Fr. for "pulley rope," *Chable*—pron. shah-bell; Ger. *Roll-leine*; also *Flaschenzugseil*—pron. flash-enn-tsoog-zile. Syn. Fr. for "scaffolding rope," *Chabot*—pron. shah-boh; Ger. *Gerüstenseil* (das *Gerüste*, the scaffold)—pron. geh-ruest-enn-zile; also *Tauwerk am Gerüste*—pron. tow-vairrk am geh-ruest-teh. Syn. Fr. for "knotted rope," *Cordage nouée*—pron. noo-eh; Ger. *Tau* or *Seil mit Knöpfen*—literally "ropes with knobs" or projecting heads—pron. knoepp-fen. Syn. Fr. for "ropemaking," *Corderie*—pron. korr-der-ree; Ger. *Seilerei*—pron. zile-er-eye; also *Seiler* or *Tauerarbeit*—pron. tou-err-arr-bite (tow like cow). Syn. Fr. for "ropemaker," *Cordier*—pron. kohr-dee-eh; Ger. *Seiler*—pron. zile-err; also *Reepmacher*—pron. reep-makk-err. Syn. Fr. for a "rope-walk," *Corderie*; Ger. *Seilenschlägerei*—pron. sile-en-shlay-gerr-eye.

Rose Window, in Architecture. A window chiefly shown in Gothic buildings, circular in form, the interior space being filled in with tracery work, the main parts of which, in some instances, radiate like the spokes of a wheel. Some of the rose windows in cathedrals are very beautiful in design. Der. From the Latin *rosa*, the flower so esteemed by all. Some philologists conceive that this comes from the Greek *rhodon*, allied to the Greek word for red—*eruthrus*. Syn. Fr. *Fenêtre en rosée*—pron. feh-nay-terr ahn roh-zay; Ger. *Fensterrose*—pron. fenn-ster-ro-zeh. Syn. Fr. for "rose-work," *Rosace*—pron. roh-zahss; also *Roson*—pron. roh-song; Ger. *Rosette*—pron. roh-zett; also *Einsetzrose*—pron. ine-sets-ro-zeh. "Rosewood," a species of wood red and warm in colour, and more or less richly grained, much used in cabinet-making: Syn. Fr. *Bois de Rhodes* or *de Chypre*—that is, "wood of Rhodes or of Cyprus"—pron. bwah deh rode, deh chee-perr; Ger. *Rhodese Holz*—pron. roh-day-zerr holts; also *Rosenholz* or *Cyprenholz*—pron. tsee-pernn-holts. Syn. Fr. for "rose colour," in painting, a rich,

soft pale-red, *Couleur de rose*, or simply *Rose*—pron. kooch-leurr deh rose; Ger. *Rosenfarbe*—literally "rose paint"—pron. ro-zenn-fahr-beh.

Rot, in Materials. A term used to indicate some species of decay, the best known of which is the "dry rot" in timbers of a house. *Der.* From the Old English *rotian*, to become decayed or putrid. Syn. Fr. for "to rot," or "to become rotten," *Tomber en pourriture*—literally "to fall into decay or rottenness" (from *pourrir*, to rot)—pron. tohm-bay ahn poor-ee-tuehr; Ger. in *Fäulniss übergehen*—literally "to go over to rottenness or decay"—pron. fowl-niss ueh-berr-gay-enn. Syn. Fr. for "dry rot" in timber, *Bois en pourriture sèche*—pron. bwah ahn poor-ee-tuehr saysh; also *Bois carié sèche*—pron. kah-ree-eh—from *carier*, to rot (carious). Syn. Fr. for "wet or damp rot," *Pourriture humide*—pron. you-meed; Ger. *nasse Fäulniss*.

Rotten Stone, or Brick, in Materials. A term used to indicate a soft, friable, crumbling-away condition. Syn. Fr. for rotten material used in construction, *Carié* or *Pourrie*—pron. kah-ree-eh, pooh-ree; also *Friable*—pron. free-ah-bell; also *Facile à rompre*—i.e. easy to break—pron. fah-seel ah rom-perr; also *Mou* (mooh) or *Facile à détacher*—i.e. easy to detach (one piece from the other)—pron. fah-seel ah day-tahsh-eh; also *Pourrie*—pron. pooh-ree; Ger. *Verfault*—pron. ferr-fowlt; also *Weich*—pron. vych (g hard); also *Zerreiblich*, friable (from *zerreiben*, to rub asunder, to dismember)—pron. tzer-eye-bleech; also *Zerbrechlich*, breakable, brittle (from *zerbrechen*, to break to pieces, to fracture)—pron. tzer-brechlich. Syn. Fr. for the rotting of wood, *Pourriture du bois*—pron. poor-ee-tooohr degb bwah.

Rough, in Materials. Synonymous with coarse generally, but specially as indicating material in what may be called its natural condition, as sawn boards or planks, before being dressed—that is, made smooth in surface by means of the plane. *Der.* From the Old English *rug* or *ruh* or *hreef*, that which is not smooth, or uneven in surface. Syn. Fr. (for the general term) *Grossier*—pron. groh-see-eh; also *Rafleux*—pron. rah-fleugh; Ger. *Rauh*, *Grob*, coarse—pron. row (ow as in cow), grop. Syn. Fr. for "roughen," *Dégrossir*—pron. day-groh-seer; also *Dégau-chir*—pron. day-go-sheer; Ger. *Bewal-drechten* (from *bewaldet*, woody)—pron. bay-vald-rech-tenn; also *Aus dem groben behauen*—pron. ouss dame groh-benn bay-how-enn. Syn. Fr. for "to roughen"—for which there is a synonym in plastering in the term "pricking up," roughening the surface of planks of wood, for which the Fr. syn. is *Piquer les pans de bois* (pron. pee-kay lay pahh deh bwah)—of blocks of

stone, *Piquer les pans de pierre*—pron. deh pee-airr; Ger. *abzuputzende Steine aufhauen*—pron. app-tsoo-put-tsen-deh stine-eh outf-how-enn. Syn. Fr. for "roughness," *Inégalité*—pron. inn-ay-gal-ee-tay; also *Grossièreté*—pron. groh-see-airr-tay; Ger. *Rauhigkeit*—pron. row-ich-kite; also *Rohheit*—pron. roh-hite; also *Grobheit*—pron. grop-hite. Syn. Fr. for "roughing," *Degrossi*—pron. day-gross-ee; Ger. *Groben*.

Rough Cast, in Materials and Plastering. Rough-cast as a material is composed of fine gravel well washed in water to free it from soil, etc. It is then mixed and well stirred up with a fluid of lime and water. Syn. Fr. *Hourdag* (from *hourder*, to do rough work)—pron. hoor-dahj; also *Enduit hourdé*—literally "rough plastering or laying on"—pron. ahn-dwee hoor-day; Ger. *Rauhputz*; also *Rauhwark*—pron. row-pootz or -vairrk; also *Berapp* (from *berappen*, to rough cast). To "rough cast," a wall in plastering is first to give the outside wall a pricking-up coat of lime and hair, then a second coat worked smooth, and over this while soft the rough cast or prepared gravel is thrown or plastered up against the surface, the pebbles sticking or adhering to it. This affords a coat or covering to an outside wall rougher in appearance, but much cheaper, than stucco or cement. Syn. Fr. *Gobeter*—pron. goh-beh-tay; also *Ravaler un mur*—pron. rah-val-eh-uhn muehr; Ger. *Berappen*—pron. beh-rapp-enn; also *eine Mauer abputzen* (from *putzen*, to dress, to trim)—pron. ine-eh mow-err ap-poots-enn.

Roughing-in, in Plastering, is the first coat of plaster put on in three-coat work.

Rough Rendering, in Plastering, is the giving of one coat of plaster only, and this left rough on the surface.

Rough Strings, in Staircasing. Rough, unplanned pieces of timber placed under the steps of a stair to support them, the ends of which are secured to vertical struts.

Rough Walling, in Masonry. A synonym for rough rubble work (which see)—walls constructed without mortar, or what is called otherwise "dry stone walling," and practised in rural districts where stone is plentiful. Syn. Fr. *Limosinage*—pron. lee-moh-zeen-ahj; also *Maconnerie limosiné*—pron. mah-son-ner-ree lee-moh-zeen-eh; Ger. *Bruchsteinmauerwerk*—pron. brooh-stine-mow-err-vairrk.

Round, in Construction. A term used to indicate that a body, as a block of stone or piece of wood, has its surface a part of a circle, cylinder, or sphere. The term half-round, for example, indicates that the body has its surface half a cylinder, or its section is half of a circle, and this is otherwise called a "bead." The moulding "ovolo" is sometimes called a "quarter-round," indicating that its section is the fourth of a

circle or of a cylinder. *Der.* From the French *ronde*, and this from the Latin *rotundus*, and this again from *rota*, a wheel. Syn. Fr. for "round," *Cylindrique*—pron. see-leen-dreek; also *Sphérique*—pron. sphare-eek; also *Circulaire*—pron. sere-koooh-lairr; also *Rond*—pron. rohnd; also *Arrondie*—pron. ah-ronn-dee; Ger. *Rund*—pron. roohnd; also *Cylindrisch*—pron. see-linn-drish; also *Sphärisch*—pron. sfair-ish. Syn. Fr. for "to round," *Gourbiller*—pron. goohr-beel-yea; also *Gouriller*—pron. gooh-reel-eh; Ger. *Ausrunden* or *Aufrunden*—pron. owss- or owf-roon-den. Syn. Fr. for "to round off," *Arrondir*—pron. ah-rong-derr; Ger. *Abrunden*—pron. ahb-roon-denn.

Round Edge, in Construction. Syn. Fr. *Barbe*—pron. bahrrb; Ger. *Rundkante*—pron. roohnd-kann-teh. Syn. Fr. for "round head," *Tête en rond*—pron. tate ahn rohn.

Rounding off, in Construction. A term often used as synonymous with finishing off or completing. Syn. Fr. *Arrondissage*—pron. ah-ronn-deess-ahj; Ger. *Arrondiren*—pron. ah-ronn-deer-enn; also *Abrunden*—pron. app-roon-denn. Syn. Fr. for "rounding off" in posts or timber supports, *Paraclose*—pron. pahr-ah-kloss; Ger. *Querbalken mit Pfeilern*—i.e. beams laid across the head of piles—pron. quairr-bahl-kenn mit pfylairrn.

Round Ridge, in Roof Construction. A ridge which is finished off with a round or circular surface—sometimes termed a roll-ridge—in place of with a sharp edge. Syn. Fr. *Fait en rond*—pron. fate ahn rohn; also *Fait cylindrique*; Ger. *Rundfirste*—pron. roond-firr-steh.

Round Timber, in Materials. That is, wood or timber used in the natural form of boles or trunks and large branches, of form not squared as in balks or beams, or cut up into planks or battens. The term is synonymous with "home-grown timber"—that is, obtained from trees grown in our own country—such as oak, ash, elm, beech, poplar, larch, etc., not imported from abroad as in the case of pine or fir, all of which is sold in the form of square balks, flat planks, and battens. "Hard timber" is sometimes used as synonymous with round timber, as formerly oak was the chief timber sold by the home-grown-timber merchant. Round timber is used for a wide variety of purposes, such as for props in coal and other mines, bricklayers' scaffolding, telegraph poles, river improvement, embankment work, and the like. Syn. Fr. *Bois en grume*—literally, "uncleft wood"—pron. bwah ahn groohm; also *Bois en cylindrique*; Ger. *Rundholz*—pron. roond-holtz-; also *cylindrisches Holz*—pron. see-linn-drish-ess holtz.

Rub, in Masonry. A term synonymous with to make smooth, polish, to grind, as polishing or making the surface of a stone

by working over it with another stone; the operation in masonry being done, or facilitated, by the use of water. *Der.* From the German *reiben*, to move one body over the surface of another. Syn. Fr. *Frotter*—pron. fro-tay; also *Polir*, to polish; Ger. *Reiben*—pron. ribe-enn. Syn. Fr. for "rubbing," *Frottage*—pron. fro-tahj; Ger. *Scheuern*—pron. shoi-ern.

Rubbish, in Building. A term generally used to indicate the material used in forming the foundation sites of houses, composed of a wide variety of materials, such as soil, broken bricks, tiles, pots, stones, and all the varieties of substances met with in what is popularly understood by the term. The presence of decaying organic substances in rubbish used for foundations of houses is a fruitful source of unequal settlement in the walls, and of disease amongst the inhabitants. The term is also employed to designate the *débris* of materials, as stone chippings, pieces of brick, mortar, shavings, sawdust, etc. Syn. Fr. *Décombres*—pron. day-kohng-berr; also *Rébut*—pron. ray-bueh; also *Gravois*—pron. grahv-wah; also *Copeaux*—pron. kopp-oh; also *Guenilles*—pron. gwenn-eel; also *Éboulis*—pron. eh-bool-ee; also *Balayures* (from *balayer*, to sweep)—literally "sweepings"—pron. bay-lay-euhrr; also *Débris*—pron. day-bree; Ger. *Schutt*—pron. shut (the *ut* as in the verb *put*); also *Abfall*; also *Kehricht*—pron. keh-richt; also *Steinschutt*, *Holzschutt*, *Ziegelschutt*, *Mörtelschutt*, in the sense of being the rubbish of stones, wood, bricks, and mortar; also *Bruchschutt*—pron. brooch-shut. Syn. Fr. for "to remove rubbish," *Décombrer*—pron. day-kohng-bray; Ger. *Schutt wegreinigen*—pron. shut vehg-rine-ee-genn.

Rubbish Shoot, in Building. The temporary place for depositing rubbish, as on the site of a building, to be used in forming the foundation, or to fill up spaces to the desired level. Syn. Fr. *Gravois décharge*—pron. grawv-wah day-shargh—or *Décharge publique*—pron. pue-bleek—i.e. a place where any one is free to unload or shoot rubbish; Ger. *Schuttplatz*—i.e. rubbish place—pron. shut-plahts.

Rubble Work, in Masonry. Called also "rough rubble." Walls set in or constructed with rough stones—that is, undressed, or as taken from the quarry, etc. The stones are either set in mortar, or are placed together without mortar, the solidity of the wall being secured by their weight, and by their being so placed in relation to one another that they will interlock or bond with each other (see Bond). This species of wall is termed dry walling, and is confined to walls of low height or elevation, such as walls for enclosing spaces or fields. Syn. Fr. *Maçonnerie en moellon* (*moellon*, rough or rag stone)—pron. mah-sonn-er-ree ahn moh-

ell-ohn; Ger. *Feldsteinmauerwerk*—literally "field-stone-wall-work," meaning that the stones are those picked up in fields, etc., as distinguished from those taken out of quarries—pron. felt-stine-mow-err-vairrk; also *Rauhbrechsteinwerk*. "Coursed Rubble" walling is that in which the stones are partly squared and rough-dressed, so as to give fine joints, though the courses may not be uniform in depth or height or in level. Syn. Fr. *Maçonnerie en moellon piqué* (peek-eh); Ger. *dressirte Bruchsteinmauerwerk*; also *dressirte* (dray-serr-tay) *Knackwerk* (from *knacken*, to crack or break off, as the projecting edge or corner of a rough, uneven-shaped stone. Syn. Fr. for "rubble stone," *Pierre brute*—pron. pee-airr bruet; Ger. *Bruchstein*—pron. brooch-stine. Syn. Fr. for "rubble pavement"—that is, pavement or footpath made with rough stones, sometimes also called pebble pavement, *Pavé en blocages*—pron. pah-vay ahn bloh-kahj; also *en remplage*; Ger. *Pflaster mit kleinen Steinen*—i.e. with little stones or pebbles—pron. pflah-sterr mit kline-en stine-en.

Rule, in Tools and Appliances used in Construction. The term is in some cases synonymous with "straight edge"—that is, a flat, narrow and comparatively thin piece of wood—say three to five inches broad, half an inch thick, and from six to ten feet in length—with the edges parallel to each other and square—that is, at right angles to the surface or faces. The straight-edge or rule is used to draw straight lines, and adjust parts of objects so that they will lie in the same plane or have their edges or surfaces flush. The term rule is also applied to a measure, as the "foot rule," the "two-foot rule"—the latter generally designated by mechanics as the "two-foot." Der. Our word rule comes from the French *règle*, and this from the Latin *regula*, which again comes from *regere*, to direct or set straight. Syn. Fr. for "rule," *Règle*—pron. ray-g'll; also *Echelle*—that is, a "scale" (in the sense of having a scale of equal parts marked on it, as feet and inches)—pron. eh-shell; also *Pied*—that is, a foot rule—pron. pee-aid; also *Mètre*—that is, a metre scale, the standard of the French metrical scale of measures of length or surface—pron. mait-err. The more correct or definite synonyms for these last two would be *Echelle pied*—i.e. foot scale or rule; *Echelle mètre*—i.e. metre scale or rule; another term is *Norme*; Ger. *Masstab*—literally "a measure staff or rod"; also *Regel*, a rule—pron. reh-gell; also *Zollstab*—pron. tsoll-stahb—i.e. "an inch stake or rod"; also *Norm*. Syn. Fr. for a "two-foot rule," *Mesure* or *Echelle de deux pieds*—pron. may-zeuhr or eh-shell deh deuh pee-aid; Ger. *Masstab* or *Zollstab mit zwei Fuss*, or *zweifuss Maszstab*. Syn. Fr. for a "jointed rule," so as to fold up into a short

one, *Règle pliante*—pron. ray-g'll plee-ahnt; also *Règle brisée*—literally "a broken rule"—that is, not in one continued piece, the length being interrupted by the joint or joints—pron. ray-g'll breeze-ay; Ger. *Regel mit Gewinde*—pron. reh-gell mit gay-vinn deh. Syn. Fr. for a "straight-edge rule," *Equerre*—pron. eh-kare; a better term is *Tire-ligne*—that is, a line drawer—pron. teer-leen. Ger. *Richtscheit*—pron. reecht-shite—literally "a rule for wood logs"; a more definite term is *Linienzieher* (from *ziehen*, to draw)—pron. lee-ne-enn-tzee-herr.

Run, in Building. A term used in several ways—as to "run up a wall"—that is, to build or erect it. The expression is generally associated with work more or less quickly, and therefore not so well, done as in other work. Der. From the Old English *rennan*, to go over the ground at a greater speed than by walking over it. Syn. Fr. for this expression, *Elever un mur*—pron. eh-leuv-vay uhn muhr; Ger. *eine Mauer auf-, or errichten*—pron. i-neh mow-err-owf-orr-errich-tenn. Another expression in which the word run is met with is "so much (meaning the price) per foot or yard run"—that is, where a succession or length of feet or measurements is to be taken. The technical term is "per running foot." Syn. Fr. for "run" in this sense, *Courant*—pron. kohr-ahn; Ger. *ganze Länge*—i.e. the whole length—pron. gahn-tseh leng-eh.

Rung, or Rundle, in Joinery. The cross or transverse bars of a ladder connecting and separating the two side-pieces. They represent the steps of an ordinary staircase, but are also used for holding on by the hand while ascending or descending the ladder—this being necessary for safety, as a ladder is not only tall, reaching to a great height, but is placed, if not vertically, at least at a very high angle. Syn. Fr. *Lanterne*—pron. lahn-tairrn; Ger. *Laterne*—pron. lah-terr-neh; also *Leitertreppe*—i.e. a ladder step—pron. lite-err-trep-peh.

Rust, of Iron or Steel. A term used to indicate the red powdery substance which collects on the surface of iron exposed to the atmospheric effects, and, if means be not taken to prevent its formation, will ultimately destroy the metal. This rust or powder is produced by the action of the air, the oxygen present in it attacking the metal and producing a certain combination or compound known as oxide of iron. Rustless iron is iron subjected to what is called "Barff's process," which may be popularly described as a method of giving to the surface of the iron a species of enamel which renders oxygenation impossible under the ordinary circumstances of exposure to the air. Der. From the Old English word precisely similar to ours. Syn. Fr. for "rust," *Rouille de fer*—pron.

rooh-eel deh fairr; Ger. *Rost* or *Eisenrost*—pron. i-zenn-rost.

Rustic Work, in Masonry. The term is applied where the surfaces of the stones are left very rough, just as if half finished in the work of dressing, rubbing, etc. Rustic work, strictly speaking, is that class of masonry in which the joints between the stones are worked in grooves, either rectangular or angular in section; the other and rough-surfaced work being known more correctly as rockwork. *Der.* Our word rustic comes from the Latin *rusticus*, and this from *rus*, *ruris*, the country. Syn. Fr. for rustic work, *Bossage*—pron. boh-sahj; Ger. *Rustikwerk*—pron. rooh-steek-vairrk. Syn. Fr. for "rustic quoin," *Douelle*—pron. dooh-ell; Ger. *Bogenrundung*—pron. boh-genn-roohn-doong. Syn. Fr. for "rusticated ashlar," *Pierre rustique*—pron. pee-airr ruch-steek; Ger. *Bäuerisches Werk*—pron. boy-err-ish-vairrk. Syn. Fr. for "rustication," *Bossage rustique*; Ger. *Quadrirung*—pron. qwahd-reer-oong. "Vermiculated rusticated work," in which the surface of the stones, chiefly those used for quoins, is worked or tooled to represent roughly the twistings of worms,

the whole presenting a continued series of curves in contrary directions: Syn. Fr. *Bossage vermiculaire* or *Pierre rustique vermiculaire*—pron. verr-meek-yue-lairr; Ger. *Nudel*- (vermicelli) *rustikwerk*—pron. nooh-dell roos-teek-vairk.

Rust Joint, in Plumbing. A joint, as in fitting up of kitchen-range, boilers, hot-water pipes, etc., made water-tight by a lute or cement made of iron filings or borings mixed with water and sal-ammoniac. The ammoniacal solution promotes the rapid production of rust in, or oxygenation of, the metal; and this "rust," placed between two surfaces and these tightly screwed or riveted up, hardens quickly into a substance closely resembling metal, and gives a water-tight joint. Syn. Fr. *Joint au mastic ou ciment défonté ou fer*—pron. jwahnt oh maw-steek ooh see-mahn day-fohn-tay ooh ferr. Syn. Fr. for to "rub or polish off the rust," *Dérouiller*—pron. day-rool-yea; Ger. *Rost abnehmen*—literally "to take off the rust"—pron. roost app-nay-menn. Syn. Fr. for "rustiness," *Rouillure*—pron. roo-eel-yuehr; Ger. *Verrosten*—pron. fer-rost-enn.

S

Sag, To, in Construction. A term used to indicate the bending or deflection of a beam in the centre, which is supported at both ends. *Der.* From the Old English *zaaken*, to sink or fall down, which gives a good idea of what the sagging of a beam is—sinking or falling down—the greatest point of descent being at the point midway between the two points of support or bearing surfaces. Syn. Fr. *Courber*—pron. koohr-bay, to bend; also *Décliner*, to deflect—pron. day-kleen-ay; also *Dévier*—pron. day-vee-ay, to deviate; Ger. *Absenken*; also *Abweichen*—pron. app-vych-enn.

Sagging of a Beam. The amount of bend or deflection in a beam brought about by the action of its own weight, or through the pressure or load put upon it. To counteract this, "camber" (which see) is given to the beam. Syn. Fr. *Déviation d'une poutre*—pron. day-vee-ah-see-on doohn pooh-ter; Ger. *Balkenabweichung*—pron. bahl-kenn-app-vych-oong.

Sailing Course, in Bricklaying. Courses made at intervals in the raising of a wall in which the bricks project a part of their length in some definite proportion. These projecting parts are left in order to admit of a new or extended wall being afterwards built to bond in with the part originally built.

Sand, in Materials. The minute particles of disintegrated stone, the result of long-continued attrition or grinding of stones

one upon another by the power of moving water. Sand is divided, in a building sand, into three great classes—sea sand, pit or inland sand, and river sand. The first-named of these should never be used for the making of mortar, as the salt contained in it makes the sand highly hygrometric, and thus it gets damp, more or less, in all unfavourable changes of the atmosphere. Inland or pit sand is generally free from salt, but if not far removed from the sea margin is apt to be a little, in many cases very, salt, as the sea has, in times more or less remote, flowed over the land surface. The best sand for building purposes is river sand, and for the best work is always specified to be washed in water, to rid it of all vegetable and extraneous matter. The word is the same in spelling in the Old English as ours: the fine grains or portions of a stone rubbed down or crushed down. Syn. Fr. *Sable*—pron. sah-bell; Ger. *der Sand*—pron. dare zant; Syn. Fr. for "fine sand," *Sable fin* or *Sablon*—pron. sah-bell fan, or sah-blon; Ger. *feiner Sand*—pron. fine-err zant. Syn. Fr. for "coarse sand," *Gravier*—pron. grah-veay; Ger. *grober Sand*—pron. groh-berr zant. Syn. Fr. for "river-bank sand," *Grève*—pron. grave; Ger. *Mauerkies*—pron. mow-err-keess. Syn. Fr. for "loamy sand," *Sable à moules* or *à mouler*—pron. sah-bell ah mool, moo-lay; Ger. *fetter Formsand*—pron. fett-err fohrm-zant. Syn. Fr. for "clayey sand," *Sable argile*—pron. sah-bell ahr-jheel, or

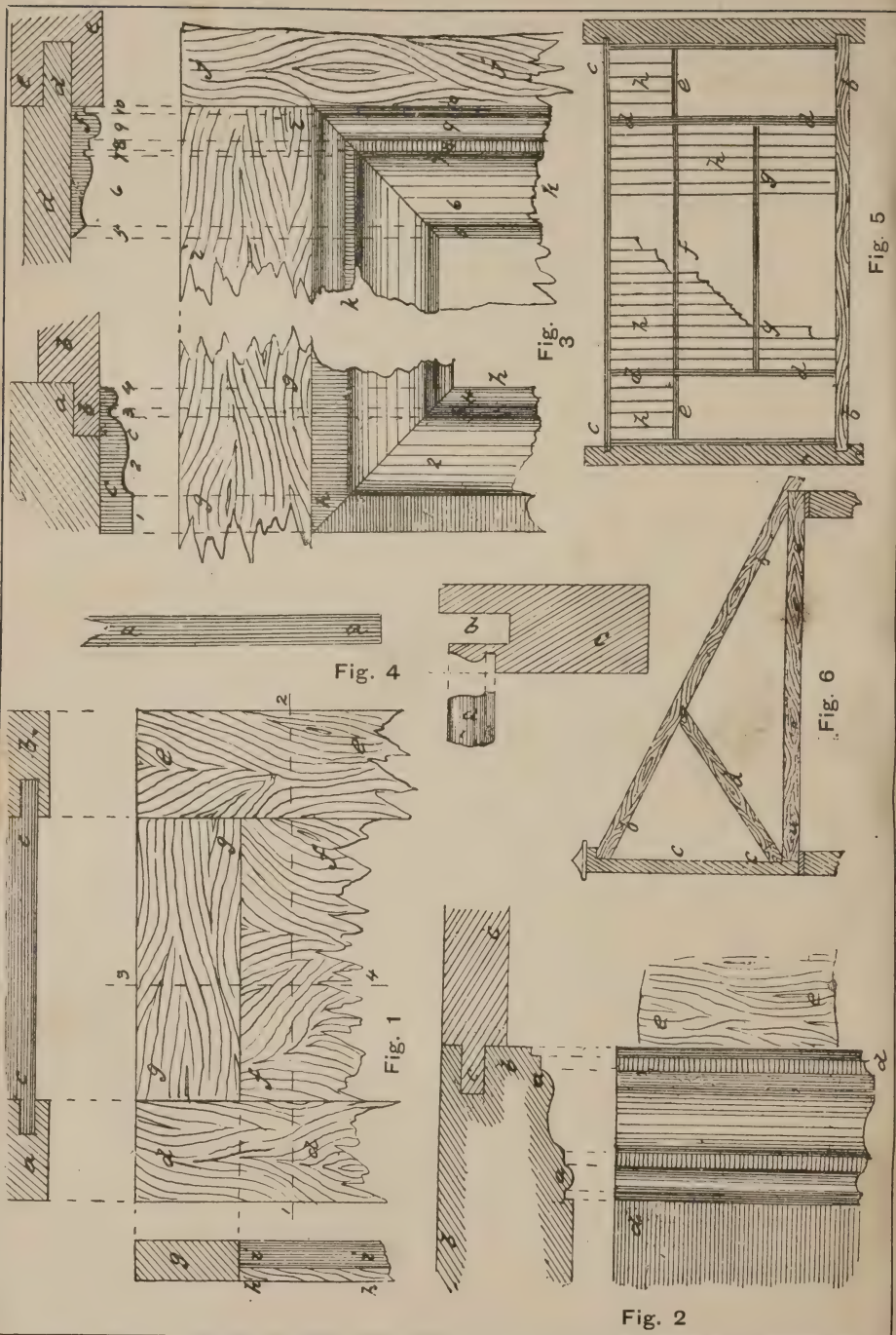


Plate XV.—Terms in Carpentry—Partitions and Roofs ; in Joinery :—Panels.

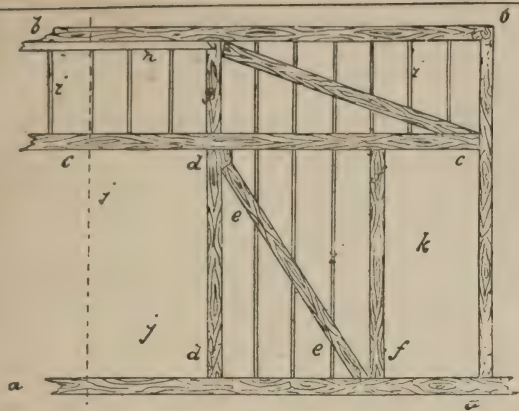


Fig. 1

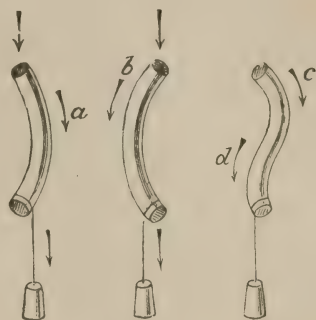


Fig. 4

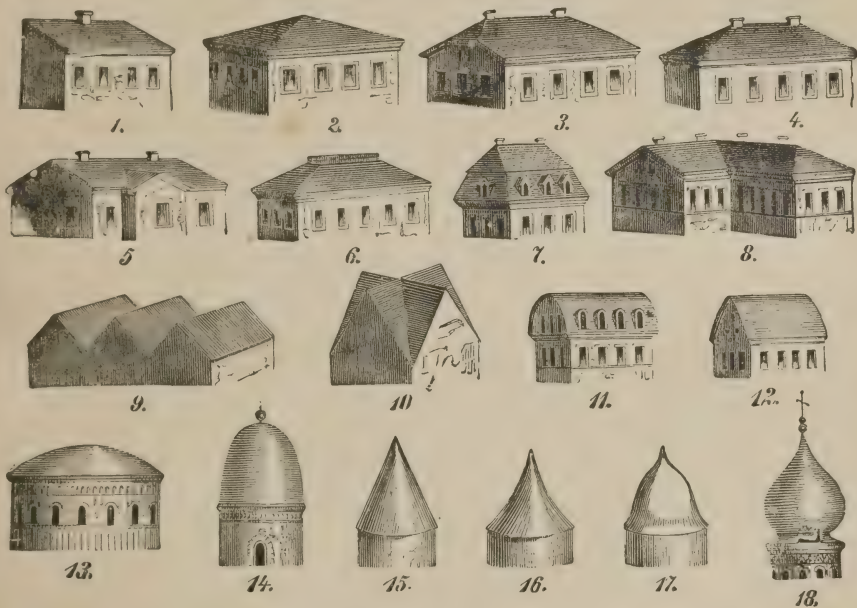


Fig. 2

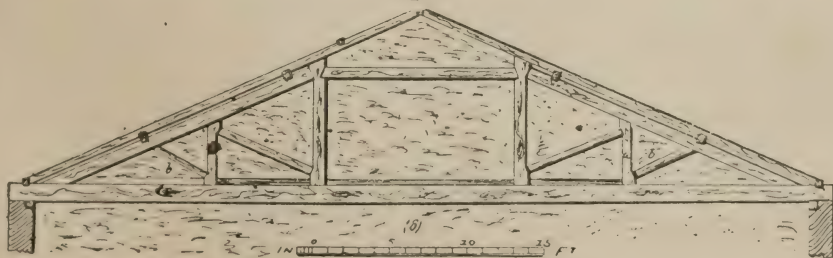


Fig. 3



Rabot—pron. rah-boh; for "fine, sharp, hard sand," *Sable fin* or *Sablon*—pron. sah-bell fan, or sah-blon.

Sand Paper, in *Joinery*. A thick, tough paper, the surface of which is covered with powdered glass of varying degrees of fineness and sharpness. It is sold in sheets, and is used by joiners, cabinet-makers and the like, to make the surfaces of parts of their work very smooth. The more correct name is "glass paper," the term "sand" being chiefly confined to Scotland. A very effective and durable sand or glass paper is now made with the powder or fine particles of a specially hard quartzose rock found in Germany. Syn. Fr. for "sand paper," *Papier sable*; for "glass paper," *Papier de verre*—pron. pah-pee-eh sah-bell, or deh vairr; Ger. *Sandpapier* or *Glaspapier*—pron. zant- (or glass) pah-peerr.

Sand Pit. The hole or excavation made in sandy soil, or the part opened up at the side of a river bank, or sandy inland bank, from which supplies of sand for building purposes are taken. Syn. Fr. *Sablère* (sah-blee-airr) or *Sablrière*—pron. sah-blohn-yairr; Ger. *Sandgrube* or *Kiesgrube*—pron. zant- or kees-grooh-beh.

Sandstone, in *Materials*. A stone of which the base is sand of different qualities. It is easily worked, and some kinds—as that known as freestone—is capable of being brought to a very fine and smooth surface. Syn. Fr. *Grès dur*—pron. gray-doohr; Ger. *Sandstein*—pron. zant-stine. Syn. Fr. for "argillaceous or clayey sandstone," *Grès argileux*—pron. graze ahr-jeil-euh; Ger. *Thonsandstein*—pron. tone-zant-stine. Syn. Fr. for "calcareous or limey sandstone," *Grès calcaireux*—pron. gray kall-karr-euh. Syn. Fr. for "hard sandstone," *Groggnard*—pron. grong-yahrd; Ger. *Hartsandstein*. Syn. Fr. for "soft sandstone," *Grès mou* or *moule* or *doux*—pron. gray moooh, moohl, doo; Ger. *Weichsandstein*—pron. vyche-zant-stine. Syn. Fr. for "marly sandstone," *Grès de marneux*—pron. gray deh mahr-neuh; Ger. *Mergelsandstein*—pron. merr-gell-zant-stine. Syn. Fr. for "new red sandstone," *Grès keuprique*—pron. gray kuh-preek; Ger. *Keuperbildung*—pron. koy-perr-bill-doong. Syn. Fr. for "refractory sandstone or fine sandstone," for lining bakers' ovens, etc., *Chemise de Fourage*—pron. sheu-meeze deh loov-rahj; Ger. *Gestellsteine*—pron. ges-stell-stine-eh. Syn. Fr. for "masonry or wall work in sandstone," *Maçonnerie en grès*—pron. mah-sonn-ner-ree ahn gray, or *Gresserie*—pron. grayse-er-ree; Ger. *Sandsteinmauer*—pron. zant-stine-mow-err.

Sandstone Quarry. Syn. Fr. *Gresserie*—pron. gress-er-ree; Ger. *Sandsteinlager*—pron. zant-stine-lah-gerr.

Sandy, in *Soils for Building*. Syn. Fr.

Sabloneux—pron. sah - blon - neuh; Ger. *Sandig*—pron. zann-dich.

Sanitary Science, in *Building*. The science which relates to the design and construction of appliances and arrangements in and around structures, chiefly domestic, by which the health of the inhabitants can be promoted and maintained. The locality, site, aspect of a house, the drainage of the site, the sewage and water-closet arrangements, the water supply, the ventilation, warming and lighting of houses, all come within the dominion of sanitary science. Der. The term sanitary comes from the Latin *sanitas*, health, and science from the Latin *scientia*, knowing or knowledge; and this from *sciens* and *scire*, to know—that is, the knowledge of the laws relating to and controlling health. Syn. Fr. *Science sanitaire*—pron. sah-nee-tare, or *Science hygiène*—pron. see-ahuss hee-jee-enn; Ger. *Gesundheitskenntniss*.

Sash, in *Joinery*. The timber frame the spaces or interstices of which carry or are filled in with the panes of glass. The frame is made up of two horizontal parts united by vertical bars. The bottom horizontal bar is called the bottom bar, the upper the head, and the vertical bars the styles. The space enclosed by these pieces is, in superior windows, wholly filled in with a large sheet of plate glass (which see). In windows for cheaply constructed houses, the panes or sheets of glass are much smaller in surface, and are supported or carried by horizontal and vertical bars called sash bars (see below). A "sash," considered as a whole, consists of two parts, called "leaves" or "lights" or "sheets"—the one being termed the "upper," the other the "lower" sheet, or, now better known, the "sash." The sheets are raised or lowered by the action of a cast-iron "sash weight," suspended by ropes or chains, which pass over pulleys which have their bearings in that part of the window frame built into the wall, which is called the "pulley style." When both the upper and lower sheets are capable of being raised or lowered, the window is said to be "double hung." In houses of the poorer classes the lower sash only is "hung," while in some the sash as a whole is fixed, so that no air can be admitted by, or allowed to escape through, the opening of the sash or window; so that in houses where it is most required a wretched economy prevents all the ventilation being secured which a well constructed and arranged window or sash-light can give. Syn. Fr. for sash, *Fenêtre croisée*—pron. feh-neh-terr krwah-zay, or *une Croisée*; Ger. *Fenstergerähme*—pron. fenn-sterr-geh-ray-meh. Syn. Fr. for "sliding sash window" (horizontally), *Fenêtre à coulisse*—i.e. a sliding, not a fixed window—pron. feh-nay-

terr ah kool-ess; Ger. *Schiebfenster* (from *schieben*, to slide, to move)—pron. sheep-fenn-ster. Syn. Fr. for "lifting or vertical sash window," *Fenêtre à guillotine*—pron. feh-nay-terr ah geel-yoh-teen; also *Fenêtre trappe*—i.e. a drop window—pron. trahp. Syn. Fr. for "framing of sash-windows," *Fenêtre croisée*—pron. feh-nay-terr krwah-zay; Ger. *Fensterrahmwerk* (from *rahmen*, to frame, to edge, to border—the framework being the border of the glass of a window)—pron. fenn-sterr-rahm-vairrk. For a "case-ment window"—in this country frequently termed a "French window," as borrowed from France, and as used almost universally in that country—Syn. Fr. *Croisée*; when with circular head, *Croisée cintrée*—pron. san-tray; Ger. *Bogenfensterrahmen*—pron. boh-genn-fenn-sterr-rah-menn. Syn. Fr. for "sash window groove," *Chassis coulante* or *coulisse* (from *couler* [kooh-lay], to flow, to slide along); Ger. *Schiebernath* (from *schieben*, to slide)—pron. shu-berr-nath. Syn. Fr. for "sash pulleys," in a vertically "hung" window, *Roulelles à chassis*—pron. rooh-let ah shah-see; Ger. *Fensterrahmrollen*—pron. fenn-stare-rahm-roll-en. Syn. Fr. for "sash line"—i.e. the rope, cord, or chain by which the sashes are balanced and hung—*Corde pour une fenêtre à la guillotine*; Ger. *Strick von Fallfenster*—literally "cord of a falling window"—pron. streek vonn fahl-fenn-sterr. Syn. Fr. for "sash bolt," *Targette* (a little bolt) *de chassis*—pron. tahr-gett day shah-see; Ger. *Fensterriegel* (from *riegeln*, to bolt, to secure)—pron. fenn-sterr-ree-gell. Syn. Fr. for "window lifters"—that is, the brass hooks or thumb rings fixed to lower rail, *Monte-chassis*—pron. mongt-shah-see; Ger. *Fensterheber* (from *heben*, to lift)—pron. hee-berr.

Sash Bars, in Joinery. The small-sectioned bars, horizontal and vertical, which divide the interior space of a sash into small compartments, which are filled in with panes of glass. The bars are of different form in section, and are all provided with a recessed part or rebate at back, upon which the panes of glass rest and are fixed by putty. The term "astragal" is sometimes used as synonymous with sash bar, especially in the north. Syn. Fr. for "sash panes" (of glass), *Panneau de fenêtre*—pron. pah-noh deh fen-nait-terr; Ger. *Fensterglas-scheibe*—pron. fenn-sterr-glass-shibe-eh.

Sash Door, in Joinery. Sometimes called glass or casement door. A door generally used internally, as in a lobby, dividing or separating the back part of a house from the front, but sometimes externally, as to an entrance door, or as a second entrance door entering immediately upon the lobby or hall, balcony or spare vestibule, between front door and it. Syn. Fr. *Porte-châssis*; Ger. *Fensterthür*.

Saw, in Tools. The implement by which the dividing or separating of wood or timber is done. The saw assumes different forms, and is known by differing names according to the purpose for which they are used; but in all the distinguishing feature is the teeth. These may be described as triangular wedges cut out in succession from the edge of a thin, flat steel blade, to the end of which is fixed the handle, by which the saw is worked. The base of all the wedges is the solid part of the blade, so that two sides only of each is exposed, and these edges are filed or sharpened into knife edges. The projecting edges are not in line—that is, the faces upper and lower are not in the same plane with the surface of the blade or with each other. But the wedges are forced or punched out of line—one say to the left, the other to the right—or, while one wedge is kept flush with the surface, the next wedge lying to it is punched back out of the line. The result is that the points or apices of the triangular wedges form a cutting edge to the saw of an irregular form. This placing of the teeth is called "setting of the saw," as the filing their edges is termed "sharpening." The set of the saw is that which enables the teeth to enter freely between the fibres of the wood in the work of sawing, and to clear themselves of the "sawdust" or small particles of wood separated by the teeth, and which sawdust is thrown out from the "saw draught" or line of sawing. Syn. Fr. for "saw," *Scie*—pron. see; Ger. *Säge*—pron. zay-geh. Syn. Fr. for "to saw," to "saw off," *Couper avec la scie*—pron. koop-eh ah-veck lah see; also *Scier*—pron. see-eh; also *Couper*—pron. kooh-pay; Ger. *Sägen*—pron. zay-gen; also *Schneiden*—pron. shnide-enn; also *Absägen*, to saw off. Syn. Fr. for "to set a saw," *Donner la voie aux dents d'une scie*—pron. dohn-nay lah vvah oh dahn duehne see; Ger. *Säge schränken, aussetzen* (schränken, to cross, to set a saw)—pron. zah-geh shraenk-enn, owss-set-zenn. Syn. Fr. for "sawing," *Coupement*—pron. koop-mahn; Ger. *Sägen*. Syn. Fr. for "a ripping saw"—that is, a saw "set" so that it cuts or separates the wood in a line with or along the fibres of the wood longitudinally, or "with the grain" of the wood—*Scie à refendre* (from *fendre*, to cleave, to split, to go through)—pron. see ah ray-fahn-derr; also *Harpon*—pron. harr-pon; Ger. *Längesäge*—i.e. for cutting lengthways of a board or piece of wood; also *Brettsäge*—i.e. a board or plank saw. Syn. Fr. for a "cross-cut saw"—that is, a saw to cut across or transversely to the grain or line of fibres of the wood—*Scie de travers*—pron. see deh trah-vair; also *Passepartout*—pron. pass-pahr-too; also, as indicating the form of the teeth, *Scie avec les dents en forme d'un*

triangle équilatéral — that is, the teeth having the form of equal-sided triangles; Ger. *Quersäge*, also in the sense of the form of the teeth. Syn. Fr. for "saw with a back" or stiffening piece, as a tenon or small handsaw, *Scie à dos* or *Scie à dossure* —pron. see ah doh or doss-uerr; Ger. *Säge mit Rücken*—pron. zay-geh mit ruck-enn. Syn. Fr. for "keyhole or fret saw," a long, narrow, tapering saw to cut out parts with from the solid, the small end of the saw being entered through a hole bored by the brace-and-bit in the wood, *Scie d'entrée*—pron. see dahn-tray; also *Scie à couteau* (a "knife saw" literally)—pron. see ah koot-oh; also *Scie à passe-partout*—pron. see ah pass-pahr-too; Ger. *Lochsäge*—pron. loch-zay-geh; also *Messersäge*—literally "a knife saw"; also *Stichspitzsäge*—literally "a prick-pointed saw"—pron. stich-spits-zay-geh. Syn. Fr. for "circular saw," *Scie circulaire*—pron. see seer-kueh-lair; also *Scie ronde*—pron. rohind; also *Scie à lame* (lahm) *circulaire*—literally "a circular sheet" (or disk or plate) saw; Ger. *Zickelsäge*—pron. tsick-ell; also *Circularsäge*; also *Kreissäge* (*Kreis*, a circle). "Endless band saw," a narrow-bladed, thin, and very elastic saw, made like a driving strap or band, and like a strap passed round two pulleys, to one of which motion of revolution is given, so that a continuous motion is given to the band saw, the edge of which is serrated or toothed. The saw passes through a slot in a steel-faced flat table, on which the work (as fretwork) to be cut is placed, and by adjusting which in varied relation to the saw, which runs always at a fixed point in the plate, any outline can be given; and by entering the saw through a slot in the wood any interior pattern can be cut out of the solid part of the wood with great facility and accuracy. Syn. Fr. *Scie sans fin*—literally "saw without end"—pron. see sahn faihn; Ger. *Bandsäge*—pron. bant-zay-geh; also *Säge ohne Ende* ("without end")—pron. zay-geh oh-neh enn-deh. "Frame or framed saw"—that is, a frame in which a number of saw-blades are fixed at their ends, so as to present a series of cutting edges parallel to and at certain distances from each other. A vertical motion in alternated or up-and-down directions is given to the frame, so that when the end of a log or balk of wood is presented to the saws, they cut the log up into a series of narrow-edged or thin planks or boards, the thickness of which is regulated by the distance between the saws in the frame. By appropriate mechanism the framing which carries the log to be cut up is moved forward as the sawing progresses, the proportion between the speeds of both being duly arranged for by the mechanism. Syn. Fr. *Scie à monture*, a mounted saw—pron. see ah mon-tuehr; also *Scie allemande*;

Ger. *Gestellsäge*—pron. geh-stell-zay-geh. "Stone-cutter's saw," a thin, comparatively narrow blade of steel mounted in a frame, which is swung from the ends of another and a vertical frame, so that the saw can be moved to and fro horizontally across the face of the stone which is to be cut vertically into two or more portions. The saw is dragged to and fro by men one at each end of the block of stone. The cutting blade is aided in its work by the application of water; and its action is more that of abrading or rubbing down the particles of stone than of sawing proper, as the cutting or rubbing edge is not serrated or toothed, but plain. Syn. Fr. *Scie à pierre*—pron. see ah peeair; Ger. *Steinsäge*. "Saw mill," a term given to indicate the house or works where wood is cut up into the various forms and dimensions required by the building trade. Syn. Fr. *Scierie*—pron. see-err-ee; Ger. *Sägemühle*—pron. muehl-zay-geh. "Sawyer," the workman who works the saws, adjusts them, and arranges the wood to be sawn in relation to them. Syn. Fr. *Scieur de bois*—pron. see-euhr deuh bwah; Ger. *Holzsäger*—pron. hollts-zay-gerr. "Sawpit," the enclosed space or excavation made to aid the work of sawing heavy balks or logs or beams of wood into planks by manual labour. Blocks or battens of wood are thrown transversely across the upper part of pit, on which the balk to be cut up rests. The workman who directs or guides the saw along the line drawn or marked out on the upper face of the balk or log stands upon the log, and is hence called the "top sawyer"—a phrase which is used often as a synonym for a skilled or clever man in any branch of work; as he is of greater importance in the work than the other or lower workman, who, standing on the floor of the pit below, has chiefly the labour of working or pulling the saw up and down. Syn. Fr. *Fosse du scieur*—pron. foss duuh see-euhr; Ger. *Sägegrube*—literally "the saw pit"—pron. zay-geh-groo-beh. The "pit saw" is the form of saw used in the ordinary sawpit. It is connected vertically with two cross or transverse handles, which are grasped one by the top sawyer, the other by the workman who stands in the pit below the balk to be cut up lengthways; the saw being worked vertically up and down by being pulled up and pushed down by the top sawyer, and pulled down and pushed up by the sawyer in the pit. Syn. Fr. *Chevalet*—pron. sheu-vah-lay; also *Triquet*—pron. treek - eh. In the "two-handed saw" the blade is connected with two handles, one at each end, or which stand vertically or at right angles to the length of the saw. In working the saw two men are employed, one sitting or standing at one side, the other at the

opposite side, of the tree bole or log to be divided; and an alternate side-to-side motion is given by the workmen alternately pulling and pushing. Syn. Fr. *Arpoint*—pron. ahr-pwahn; Ger. *Zweihändige Säge*—pron. tsvy-hen-dig-eh zay-geh. Syn. Fr. for "saw blade," the steel part serrated or provided with the cutting teeth, *Feuille de scie*—pron. feuhil deh see; Ger. *Sägeblatt*. "Saw cut," a term used in construction to indicate the groove or track made in wood by the cutting edges of a saw where it is not deep enough to separate the piece into two parts. A synonym used often to indicate this is "saw draught." Syn. Fr. *Trait de scie*—pron. tray deh see; Ger. *Sägeschnitt* (shnitt). "Sawdust," the particles of wood fibre detached from the body of the wood by the action of the saw. The "dust" varies in fineness according to the fineness of the teeth of saw. Syn. Fr. *Poudre de scie*—pron. pooh-derr deh see; also *Poussière de scie* (poohs-yairr); Ger. *Sägemehl*—literally "saw meal"—pron. zay-geh-mail; or *Sägespäne*. "Saw file," a file having three sides, and therefore three sharp edges, used to "set" or sharpen the teeth, and give each its proper angle or edge. Syn. Fr. *Lime* (leem) *pour les dents de scie*, or more simply *Carrelette à scie*—pron. carr-let— which means a fine file; Ger. *Sägefeile*—pron. zay-geh-fy-leh.

Saxon Style, in Architecture. According to some writers the first of the five classes of Gothic architecture (which see); but it is now pretty generally treated, not so much as a separate style, quite distinct in its characteristics from the Gothic as generally received, but as, in fact, having no true pretensions to be considered as forming in itself a distinct style—it being in reality merely a variety, and a debased variety, of the Romanesque (which see). It is a very old style of building, many of the examples dating from the tenth and the ninth centuries, and even much earlier.

Scaffold, in Construction. An arrangement of timbers, framing, or framework, by which working surfaces or floors are obtained for the workmen at different heights above the ground. The simplest form of scaffold is that used by the bricklayer, which consists of vertical poles or tall branches of trees, which are fixed in the ground at some short distance from the face of the wall being raised. These are termed "ledgers," and to them at various points of their height transverse poles are lashed or tied with ropes, their inner ends resting upon the brickwork. These transverse parts are called "putlogs" (which see), and their office is to carry the planks or boards on which the building materials are placed, and on which the bricklayers stand and move about. In other and large and important

structures, where heavy weights are dealt with, the scaffolding is of a more elaborate and costly kind, being erected with strong, large-sectioned balks or beams. Those placed vertically are termed posts; on them rest the horizontal beams, and these are strengthened and the whole bound together by angularly disposed struts or braces. Syn. Fr. for "scaffold," *Echafaud*—pron. eh-shah-foh; Ger. *Schaffot*, *Gerüste*—pron. shahff-ott, geh-ruess-teh. Syn. Fr. for "scaffolding," signifying the extent to which the scaffolds are erected, or an assemblage of scaffolds—the completed set of scaffolds considered singly, *Echafaudage*—pron. eh-shah-foh-dahj; Ger. *Baugerüste*—literally "a building staging"—pron. bough-geh-ruess-teh. Syn. Fr. for "bricklayers' scaffolding," *Echafaud d'échasses et boulins* (see Putlogs, Ledgers)—pron. ay-shah-foh day-shass eh boo-lain; Ger. *Stangengerüste*—pron. stang-enn-geh-ruess-teh.

Scales, in Building or Architectural Drawing. The lines drawn either upon the paper on which the plans, etc., are set out, or upon flat rules of boxwood or ivory, and to which latter the term is applied in the general way. The lines are of varying length, but are in all cases long enough, to have several divisions marked or set off along them. These divisions are of two kinds—the large or long, and small or short. The long divisions in what is termed a scale of feet and inches are conventional representations of feet, the smaller or short ones of inches. The large divisions have some definite relation to the measure of length employed; thus, in a scale of feet a certain length, such as half an inch or three-quarters of an inch or an inch, is taken, and laid off along the line which forms the base line of the "scale" to be constructed. If the extent of this measurement is half an inch, the scale is said to be a scale of "half-inch to the foot"; if one inch, a scale of "inch to the foot." As there are twelve inches to the foot, the first division, to the extreme left of the scale which is being constructed, is divided into twelve equal parts, and one of these is the measure of an inch as given on the scale. In some cases the place of the third, the sixth and the ninth inch is alone indicated, and this chiefly where the scale is small. The divisions thus marked or set off on the line are then numbered. The large ones indicating feet are marked 1, 2, 3, etc., the 1 being the third division or line, 0 being the mark on the second line. The left-hand space between the first and second divisions being marked out with twelve divisions representing inches, these are figured, beginning with 0 to the right hand, and successively numbered 2, 3, 4, up to 12, which is the end of the scale to the right. Where

this division has only three-inch spaces marked out, the first of the divisions from the right-hand point towards the left, or 0, is numbered 3, the sixth inch 6, and the ninth 9. Scales are named according to the extent of the large divisions. Thus a scale of $\frac{1}{4}$ inch to the foot has the large divisions $\frac{1}{4}$ inch long, $\frac{1}{2}$ inch to the foot $\frac{1}{2}$ inch long, and so on. Synonyms used for such expressions are: $\frac{1}{16}$ scale—that is, $\frac{1}{16}$ of the full size or dimensions, as there are 48 quarter-inches in the foot. A $\frac{1}{2}$ inch to the foot is a $\frac{1}{2}$ scale; 1 inch to the foot is a $\frac{1}{12}$ scale; $1\frac{1}{2}$ inch to the foot is a $\frac{1}{8}$ scale; 2 inches to the foot is a $\frac{1}{6}$ scale; 3 inches to the foot is a $\frac{1}{4}$ scale. The last-named scales are used for "detail drawings." Syn. Fr. *Echelle*—pron. aye-shell; Ger. *Masstab*—i.e. a measuring stick; also *Brettmaszstab*—pron. bret-mahsstahb, a board or flat measuring stick or rod. Der. From the Latin *scala* or *scala*—possibly also from the Anglo-Saxon *scaln*, the scales of a fish, the regular order in which the divisions of these are given suggesting the equal divisions of the scale for measuring distances; or it may be from the French *échelle*, this being corrupted in the curious way of which we have given an example in the Dissertation preceding the terms of the Dictionary.

Scantle, in *Slating*. A gauge used by slaters to regulate the proper length of slates.

Scantling, in *Construction*. A term used in timber-work to indicate the measurement across or the breadth of timbers. Syn. Fr. *Echantillon*, a sample or pattern, and this from the word *chantel*, a side or a piece, also a corner—pron. eh-shahng-till-ong; also *Equarrissage*—pron. ache-au-reece-ahj; Ger. *Masztab für Bauholz*—pron. bough-hollts. The term also is used sometimes to denote the dimensions of a stone; and in the case of timber in comparing one piece with another, as one piece is of "smaller scantling" than another.

Scarf Joint, in *Carpentry*. A method of joining short timbers in order to make one longer piece. The joint varies in form according to circumstances, and it may be generally described as an indented joint, the projecting part of one end of the beam going into the indented or hollow portions of the other. The simplest form of the scarf joint is the "half-lap" (which see). In place of the piece cut out having a flat surface—which technically is called the "table" of the joint—parallel to the face of the beam, the table is oblique in the direction of its length to the line of beam. In some cases the table is cut into smaller tables at varying angles. The pieces thus joined by a scarf joint are secured together by bolts

and nuts or iron straps passing round the two; and in the more complicated kinds of scarf joints the tables are kept from moving upon one another by the insertion of wood keys driven up into rectangular apertures, formed by cutting slots in the face of each table, each slot being in depth half the depth of the key. Der. From the Anglo-Saxon *scarf*, or the Old German *scherfforn*, signifying a piece cut off, a part of a larger body, a strip cut off. Syn. Fr. for "to scarf a beam," *Assembler une poutre à mibois*; also *moitié bois*—literally "half wood," as in all scarfs the half depth of each end of beam is cut to form the scarf—pron. ah-sahm-blaj ah mee-bwah or mwah-teeyah bwah; Ger. *Balken spleissen*—literally "to splice a beam," in the sense of cutting the end of the beam to form the scarf in two parts, and tying or securing them together—pron. bahl-kenn spli-senn. Syn. Fr. for "a scarf," *Echarpe*—pron. eh-sharp; Ger. *die Schärpe*—pron. shairr-peh. Syn. Fr. for the "scarf," known as the half-lap or the rebated joint (see Rebate), *Mibois*—pron. mee-bwah; also *Patte*—pron. pahtt; also *Joint en mibois*—pron. jwoyn-tahn mee-bwah; Ger. *Einfacher Balken*—pron. ine-fah-cherr bahl-kenn. Syn. Fr. for a "scarf joint," *Ecart*—pron. eh-karr (from *écarter*—pron. eh-karr-tay, to separate); Ger. *Verbindung von Balken*. Syn. Fr. for a "scarf with flat-surfaced table, but with oblique faces," *Ecart double moitié par moitié*—pron. eh-karr dooh-bel mwah-teeyah parr mwah-teeyah; Ger. *Schräger Splissenbalken* (from *schräg*, oblique)—pron. shray-gerr. Syn. Fr. for a scarf joint with indented and oblique faces or tables (known in France as the *joint* or *trait à Jupiter*, from a fancied resemblance of the line of joint to a streak of lightning) *Assemblage à trait de Jupiter*—pron. ah-sahm-blaj ah tray deh jueh-pee-tairr; Ger. *Doppeltes französisches Balkenblatt*—i.e. a double French beam, leaf or table—pron. dop-pell-tes fran-tsoe-zish-es bahl-kenn-blaht. Syn. Fr. for a "scarf joint with key," *Trait à joints droits et à clef*—pron. tray ah jwoin drwah eh ah klay; Ger. *Balkensplissen mit dem Keil*—pron. bahl-kenn-spliss-enn mit dame kile. Syn. Fr. for "scarfing chisel," *Ecartoir*—pron. eh-karrt-wahr; also *Ecatoir*—pron. eh-kah-twahl; Ger. *Fügemeißel*—pron. fueh-geh-mice-ell (from *fügen*, to join).

Scarp, in *Foundation Work and Masonry*. A term used to indicate that the earth or soil of a steep or sloping ground is laid out in planes at different levels like the steps of a stair, the foundation courses of the wall, such as a retaining wall, forming the planes. Der. Our word is obviously from the French *escarpe*, which see below. Syn. Fr. *Mur en talus*—i.e. a sloping wall—pron. moohr ahn tah-looh; also *Escarpe*—pron.

ess-carrp; Ger. *Böschmauer*—pron. boehsh-mow-err (from *bösch*, to slope).

Schedule of Prices, in Construction. A list containing the prices to be charged by the contractor for the different materials used in the erection of a building. By taking this in connection with the Bill of Quantities or Schedule of Measurements (which see), an approximatively accurate estimate of the cost of the structure will be obtained. *Der.* From the Latin *schedula*, and this from, or a diminutive of, *scheda*, signifying a strip or narrow piece of papyrus or paper, and this from the Greek *schēdē*. Syn. Fr. *Cédule des prix*; also *Inventaire des prix*—pron. say-doohl day pree, aihn-vahn-tare day pree; Ger. *Preisliste*; also *Preiszetzel* (*Zettel*, a ticket, a billet)—pron. price-list-eh, tsett-ell.

Scheme, in Architectural Drawing and Design. A term sometimes used as synonymous with a sketch, sketch plan, or original conception put on paper of the design of the building. *Der.* From the Latin *schema*, a plan or outline, and the Greek *schema*, and this from *scheo*, to have, hold, or retain. Syn. Fr. *Esquisse*—pron. ess-keece; also *Canevas*—pron. kah-na-vah; Ger. *Vorbild*—pron. fore-billd.

Scheme Arch, in Bricklaying. An arch of which the section of the soffit or under curve is less than a semicircle. It is otherwise sometimes called a segmental arch. Syn. Fr. *Arc bombé*—pron. ark bomm-bay; Ger. *Stichbogen*—pron. stich-boh-gen.

School, in Building. The structure in which the education of children, etc., is carried on. *Der.* Curiously enough, from the Latin *schola*, and this from the Greek *scholē*, signifying the time or leisure time devoted to the acquiring of knowledge; and this being done in many instances, by numbers assembled at one time, gave rise to the name of the meeting, and of the place of meeting also. Syn. Fr. *Ecole*—pron. eh-kohl; Ger. *Schule*—pron. shoo-leh. The more precise term is schoolhouse, the Syn. Fr. for which is *Bâtiment de l'école*—pron. bah-tee-mahn deh lay-kohl; Ger. *Schulhaus* pron. school-howsee.

Scolloped, in Upholstery and Interior Decorative Work. A term employed to indicate the way in which the edge of a piece of tapestry or of wood is cut with round-edged indentations, like the edge of a shell or clam shell, for example. Syn. Fr. (derived from this idea) *Ecaillé*—that is, shelled edge—pron. ake-ahl-yeh; Ger. *Schuppenförmig* (from *Schuppe*, a scale, as the scales of a fish; it may also come from *Schappen*, a shovel, a round-nosed one, a number of which placed edge to edge would give a good conception of a scalloped edge, as do also the scales of fishes)—pron. shoop-foehr-mich.

Sconce, in the Lighting of an Apartment. A metal shield placed behind a lamp or candle, so as to protect it from side draughts or currents of air, but chiefly to reflect or throw out the light into the apartment. *Der.* From the Danish or Icelandic *schans* or *skans*, which signifies a fortification or a helmet, a military protection, and *sconce* means also a protection for a light. Syn. Fr. *Bobèche*—pron. boh-baysh; also *Lamperon*—pron. lahm-peh-rong; Ger. *Lichtknecht*—i.e. a light server or stand—pron. licht-knaicht (gh and ch guttural, see Dissertation); also *Lichtdille*—i.e. a light socket—pron. licht-dil-leh.

Scoop out, in Foundation and other Work. Where water has collected in trenches, etc., it is sometimes lifted out by the flat blade of a shovel or spade, and is said to be scooped out. *Der.* From the Danish *skuffe*, or from the Greek *skuphe*, and this from *skuphein*, to dig or hollow out. Syn. Fr. for "to scoop," *Baqueter*—pron. bah-keh-tay; Ger. *Schaufeln*—pron. shough-feln (ough as in *plough*); also *Ausschöpfen*—pron. owss-shoep-fenn. Syn. Fr. for a "scoop shovel," *Ecoupe*—pron. eh-koop; Ger. *Schöpfschaufel*—pron. shoepf-shough-fell.

Scoring, in Plastering. The scratching with deep scratches or indentations the surface of the first coat of plaster, to give a key or hold to the plaster put on for a succeeding coat, is so called. The scores or scratches are made in opposite directions obliquely to the line of floor, so that diamond or lozenge-shaped compartments are formed. *Der.* The word comes almost without change from the Old English *scor*, a scratch, a notch, and this from *sceran*, to cut or divide; and this latter, by the way, gives us our term *shear* and *shearing*. Syn. Fr. for "to score," *Faire une entaille* (from *entailler*, to nick, to notch)—pron. fare uehn ahn-tahil; Ger. *Einshneiden*—pron. ine-shnide-enn.

Scrape, in Construction. To take off with a tool the matter adhering to the surface of a stone, as green moss, weather stains, and thus to restore the original appearance and tone of the block. *Der.* From the Old English *screpan*, to grate, or make a noise like that done by scraping a surface. Syn. Fr. for "to scrape" generally, *Raturer*—pron. rah-tueh-ray; Ger. *Abschaben* (from *schaben*, to shave, to scrape, to grate—pron. shah-benn). Syn. Fr. for "to scrape in joinery," *Racler*—pron. rah-klay; Ger. *Abziehen*—pron. app-tsee-enn. Syn. Fr. for "to scrape off paper or other decorative work from walls," *Refendre*—pron. ray-fahng-derr; Ger. *eine Wand* or *Mauer abkratzen*. Syn. Fr. for "to scrape the roads," *Ebouer* (to take off the clay)—pron. ay-booh-eh; Ger. *Fegen*—pron. fay-gen. Syn. Fr. for "scaper" generally, *Grattoir*—pron. graht-

twahr; also *Râcle*—pron. rah-kel; Ger. *Kratzeisen*—pron. krahtts-i-zen. Syn. Fr. for "door scraper," *Décrottoir* (from *crotte*, mud on street or road mud)—pron. day-crott-wahr; also *Burette*—pron. beuhr-ett; Ger. *Kothkratzer*, or *Schlammkratzer*, or *Schuhkratzer*, sometimes *Moder*. (boot mud) *kratzer*. Syn. Fr. for "scraping," *Gratter*, *Racler*, *Ecailler*—pron. gratt-eh, rah-clay, ay-kahl-yea; Ger. *Kratzen* or *Abkratzen*.

Screed, in *Plastering*. Wooden rules or straight-edges for running mouldings. The term is also used to indicate the grain in plaster formed on the margin of the surface of the work to be done, as walls and ceilings. Syn. Fr. *Moulure*—pron. moo-luehrr; Ger. *Abtheilungen beim putzen der Mauern*—pron. abhtile-oong-enn fon pootts-enn dare mow-errn.

Screen, in *Masonry and Plastering*. An appliance used to screen gravel, etc., separating large pieces from the small. It consists of a frame of wood, the bottom of which is made of iron rods placed longitudinally, and at short distances from, and parallel to, each other; the distance between the rods regulating the size of the gravel, etc., passed through. The screen is placed on the ground at an angle more or less oblique to its surface, and the material to be screened is thrown up by the spade or shovel against the outer surface of iron- rods, the small material passing through and being deposited in a heap under the screen, the large pieces rolling down the outer surface of rods and being deposited at foot of the screen. Syn. Fr. *Passe-partout à la claie pour le gravier ou mortière* (claie, a hurdle—that is, having parallel bars)—pron. pahss-pahr-toht ah lah klay poohr leuh grah-vee-ay oo mohr-tee-air; Ger. *Durchrädern* or *Durchsieben* (Räder a riddle, or Sieb, a sieve,) *für den Kies* (gravel) *oder den Mörtel*—pron. doorch-rayd-errn fuer den keese oh-derr derr moehr-tell or *Kiesrolle*. Syn. Fr. for "screen," as a shelter to screen off the wind, *Paravent*—pron. pahr-ah-vahn; Ger. *Schirm*—pron. sheerrm. Syn. Fr. for "fire-screen," *Serre-feu*—pron. sairr-feuh; Ger. *Ofenschirm*—pron. oh-fenn-sheerrm. Syn. Fr. for "screen wall," *Mur de protection*—pron. muehr deh proh-tex-yong; Ger. *Schirmmauer*—pron. sheerrm-mow-err. Syn. Fr. for "folding screen," *Paravent à feuilles*—i.e. in leaves—pron. pahr-ah-vahng a fueh-eels; Ger. *Windschirm*—pron. vind-sheerrm. Our word screen, as an object which gives shelter to another, is derived from *Schirm*.

Screen Door, in *Domestic Architecture*. An interior door designed to cut off or screen off one part of a house from another—as the door between a vestibule and the hall, or between the lobby and the kitchen or working part of the house. Syn. Fr. *Serre-porte* (from *serrer* [serr-eh], to close, to shut up or off)—pron. sairr-portt; Ger.

Schirmthür—pron. sheerrm-tuehr. A synonym for screen door is "glass door." Syn. Fr. *Porte vitrée*—pron. pohrt vee-tray; Ger. *Glasthür*—pron. glas-tuehr.

Screw Bolt, in *Carpentry*. An appliance used to connect securely together two beams, as scarfed beams (which see), or one part of a framing or truss with another, as the foot of a king-bolt with the tie-beam. The bolt is made with a long shank of wrought iron circular in section, the outer end being screwed for a certain part of its length; the other end is finished off with a flat head square in form, and of such a size that it projects some distance over the tail or screwed part or bolt proper. This flat head rests on its under surface on the face of one of the parts to be connected together, and affords a bearing surface which distributes the strain on the wood which is created by screwing up the bolt. The screw bolt is not complete—cannot, indeed, be used—without the "nut"; so that the proper term to employ is "screw bolt and nut." The "nut" is a flat piece of iron, square (but in superior work hexagonal) in form, having the dimensions or about the dimensions of the "head" of the "bolt." A hole is made through the thickness of the nut, which is "tapped" or screwed, the screw thread being of the same "pitch" as the screw thread of the "bolt." A hole being bored with the auger (which see) through the two pieces to be secured together, the bolt is passed through—the length of which is such that a length of the screwed end projects below or beyond the surface of the beam or part opposite to that on which the "head" of the bolt presses. The "nut" is then entered and turned round with the "screw key" or "spanner" till the requisite degree of strain is brought upon the bolt, and consequently upon the pieces of wood which are being screwed together. To prevent the nut from entering into or pressing upon the wood surface unduly, an iron washer or plate is placed nearest the surface of the wood, thus distributing the pressure upon it and giving the "nut" a hard, unyielding surface to press upon. Syn. Fr. for "screw bolt," *Cheville à écrou*—pron. sheu-veel ah eh-kroo; Ger. *Schraubenbolzen*—pron. shrow-bolts-en. Syn. Fr. for (screw) "nut," *Vis à rappel*—pron. veeze ah rah-pell; Ger. *Nutzschraube*—pron. noos-shrow-beh. Syn. Fr. and Ger. for screw key or spanner—see "Screwdriver." In the "thumb screw," or "punching screw," as it is sometimes called, the nut proper or central part is made cylindrical, and two flat parts or wings project from two sides at opposite ends of its diameter. These wings or leaves are taken hold of by the forefinger and thumb—hence the name—and turned round on the screwed end of the bolt till the requisite

degree of pressure is brought to bear upon the bolt and the parts which it secures together. The thumb screw is obviously designed to be used when the parts are of small dimensions, where a small amount of pressure only is put upon the screw bolt. Syn. Fr. for "thumb screw," *Vis ailée*—i.e. "a winged screw"—pron. veeze ayl-aye; Ger. *Handschraube* or *Blutschraube* (*Blatt*, a leaf); also *Flügelschraube* (*Flügel*, a wing). *Der*. The word screw is derived, with little change of form, from the Old English *scrue*, which means a cylinder with a long narrow strip of paper wrapped continuously round a cylinder—which is the method of developing a screw. Syn. Fr. for "to screw," *Visser*—pron. veece-ay; also *Serrer*—pron. sair-ay; also *Serrer à vis* or *Fermer à vis*—pron. sair-ay or fairm-ay ah vee. Syn. Fr. for "to screw down," *Se visser*—pron. suh veece-ay; Ger. *Zuschrauben*—pron. tsoo-shrow-ben. Syn. Fr. for "to screw up," *Fermer à vis*, or *Visser*—pron. veece-ay; Ger. *eine Schraube anziehen*. Syn. Fr. for "screwing," *Vissage*—pron. veece-ajh; Ger. *Schrauben*—pron. shrow-ben. Syn. Fr. for "wooden screw," as used in the carpenter and joiner's bench to hold pieces of wood while being worked, *Vis de bois* or *Verrine*—pron. vee deuh bwah or verr-een; Ger. *Holzschraube*.

Screwdriver, in *Joinery and Cabinet-making*. The tool used to drive or screw home screw nails (which see). It consists of a long, flat blade tapering from a broad part near the handle to the end, which is ground to a blunt edge, narrow enough to go into the slot or groove in the head of the screw nail (which see). The handle is often made circular, but a better grip is obtained if it is flattened at the sides; and this also enables the tool to lie at rest on an inclined bench or board. Syn. Fr. *Tournevis*—pron. toorn-vee; also *Clef à vis*, or *écrou*—pron. clay ah vee, ay-kroo; Ger. *Schraubenschlüssel*—pron. shrow-benn-shluess-ell.

Screw Nail, in *Joinery and Cabinet Making*. The appliance used to connect one piece of wood with another. It consists of a shank or tail which is screwed the greatest part of its length, beginning at the point, and left plain or cylindrical for a short portion of its length near the head. The head consists of a circular disc, with the under surface conical and with the upper or outer made with a slot or groove stretching across its diameter. The edge of the screwdriver (see above) is placed in this slot or groove in order to get a grip of the screw nail, which is then turned round and the nail screwed home till the under conical part of the head sinks into the wood, and the upper surface is flush with the surface of wood. A hole is first bored in the wood to enable the

screw nail to enter. A form of screw nail has been recently introduced which, having its point formed like a helical screw with a fine point, can be entered at once without the necessity to bore a hole as with the ordinary form of screw nail. Syn. Fr. for screw nail, *Vis à bois*—pron. veeze ah bwah; Ger. *Holzschraube*—pron. holts-shrow-beh.

Scribing, in *Joinery*. The adjustment of the edge of a board or plank, so that it will unite or lie upon another surface properly. Syn. Fr. for "scriber"—that is, a sharp-pointed tool used to draw or describe a line upon the surface of a piece of wood, etc.—*Traceret*—pron. trah-sir-ay; also *Pointe à tracer*—pron. pwahnt ah trah-say; Ger. *Reisspitze*, a sketch point—pron. rice-spit-seh. *Der*. The word scribe is from the Latin *scriba*, and this from *scribere*, to write.

Scroll Work, in *Building Decoration*. The finest and best known example of a scroll, and that which most clearly illustrates the characteristics of this part of building, is the volute of the Ionic order. Scrolls may be generally described as combinations of circular or curved lines, although in some straight lines are met with. Curved lines of contrary flexure are a feature of good scrolls; and in all cases where the scroll is perfect, all changes in the direction of the lines of contrary flexure flow into each other naturally and gracefully, and have no abruptness at what may be called the point of junction. The "Florentine scroll" is a fine example of a good design in scroll work. *Der*. From the Old French or Norman French word for a roll of parchment, *escrouelle*, and this from *escrou*, a roll. Syn. Fr. for "scroll," *Courbure*—pron. koor-buehrr; also *Courbe*—pron. koorhb; Ger. *Kurve*—pron. koor-veh; also *Schnecke*; also *Beuge*—pron. booh-geh. Syn. Fr. for "Ionic scroll or volute," *Corne de belier*—i.e. a scroll like that of the horns of a ram—pron. korn deuh bail-yeh; also *Volute de chapiteau Ionique*—pron. voll-ueht deh shaw-pee-toh ee-ohn-eeek; Ger. *Ionische Schnecke*—pron. ee-oh-nish-eh shnekk-eh. Syn. Fr. for the "scroll of the handrail of a staircase," being the flat volute scroll with which the handrail sometimes terminates at bottom of a staircase, *Volute de garde-corps d'un escalier*—pron. voh-luht deh garrd-korr duhn ace-kahl-yea; Ger. *Schnecke eines Treppenglinders*—pron. shnek-keh in-ness trepp-pen-geh-lain-derrrs.

Scullyery, in *Domestic Architecture*. A small apartment attached to, or more or less directly connected with, and entering from, the kitchen, in which the more dirty work of the latter is done, such as washing up of dishes, the object being to keep the kitchen tidy, and its interior more free for cooking, etc. *Der*. Curiously enough, from the Old French or Norman French *esculier*, and this from *escuelle*, a dish or a drinking vessel, the

place in which the dishes were used being known by the first of the above terms. The change from *esculier* to scullery is another example of the curious ways in which words in one language are corrupted so as to form new terms in another, and on which we have given a remark or two in the Dissertation preceding our list of technical terms. Syn. Fr. *Lavoir* (from *laver*, to wash)—pron. lah-vwahr; also *Buanderie*—though this is more specially applied to a wash-house, where clothes, not articles connected with the cuisine, are washed up—pron. bue-ahn-dee-ree; Ger. *Waschkammer der Küche*, “wash-up chamber of the kitchen.”

Sculpture, in Building. A term used to signify decorative or ornamental work in stone or wood cut by the chisel. Syn. Fr. *Sculpture*—pron. skuelp-tuehr; Ger. *Schnitzwerk* (from *schnitzeln*, to carve)—pron. shnitts-vairrk; also *Bildhauerarbeit*—pron. bild-how-err-ahr-bite (*Bild*, an image or figure). Syn. Fr. for a “sculptor,” *Sculpteur*—pron. skuelp-teuhr; Ger. *Bildschnitzer* Syn. Fr. for “sculpturing,” *Mannequinage*—pron. mah-neh-keh-nahj; Ger. *Bildwerk*. Der. Our word is from the Latin *sculptura*, and this from *sculpere*, to carve.

Scutcheon or Escutcheon, in Architecture. A part generally projecting, more or less completely, from the face of a building, and generally in the form of a shield, and on which the armorial bearings of the owner of the house are cut. In *Building* the term is also employed to denote the plate to which the door knocker is secured, as also in door furniture in the interior of the house, to indicate the part moving on a nail or pin at top, which covers the key-hole. Syn. Fr. *Ecusson*, a shield—pron. eh-kueh-song; Ger. *Wappen*, a shield—pron. vap-pen; also *Schild*—pron. shild. Syn. Fr. for “door or lock scutcheon,” *Ecusson d'une porte*; Ger. *Thürschild* or *Schlüsselschild*.

Scuttle, Coal, in Ironmongery House Fittings. The receptacle or box in which coals or fuel are kept for use in chambers or rooms of a house. Der. From the Old English *scutel*, or from the Latin *scutula*, both signifying a broad open vessel or dish or a shallow basket, which was probably the first form the scuttle took, and which may be seen still in some parts of France where wood billets or blocks are used for fuel. Syn. Fr. *Panier*, a little basket (see above)—pron. pah-niay; also *Ecoutille*—pron. eh-koo-teel; also *Boîte à charbon*—that is, charcoal box, charcoal being much used on the Continent for fuel; also *Boîte à charbon de terre*—that is, coals—literally “charcoal of the earth,” mineral charcoal—pron. bwaht ah shahr-bon deh tare; Ger. *Kohlenkorb*—i.e., coal basket (see remark above).

Sealing, in Bricklaying and Masonry. The fixing by means of mortar pieces of timber in walls, so that they will be capable of supporting or carrying doors or gates with hinges, staples, etc. Der. Our word seal is taken from the German *Siegel*, and this from the Latin *sigillum*, a diminutive of *signum*, a mark or a sign.

Seasoning Timber, in Materials. The art of preparing timber so that its moisture evaporates and leaves the fibres in a condition fitted to resist the weather influences, the “rot,” etc. There are a great number of modes adopted to season timber, all of which may be classed under one of two divisions—natural and artificial. Of the latter class there are a great number in use. Syn. Fr. for “to season timber,” *Assaisonner le bois*—pron. ah-say-zon-nay leh bwah; also *Dessécher le bois*—pron. day-saych-ay; also *Faire sécher le bois*; Ger. *Holz auswittern*—pron. holts owss-vit-tern.

Seat, in Joinery, etc. A term usually applied to a bench seat, or the seats of a church, or of a garden. A seat differs from a chair inasmuch as, while a chair is made to seat or hold one person only, a seat is capable of accommodating, or sitting as the term goes, two or more persons according to its length. Syn. Fr. *Siege*—pron. see-aihj; Ger. *Sitz*—pron. zits.

Seat-hole of a Water-closet, in Joinery. Syn. Fr. *Lunette de cabinet d'aisance*; Ger. *Abtrittsloch*—pron. ahp-tritts-loch.

Second Coat, in Plastering. The finishing coat or outer surface on which the painting or papering is placed in rendered-and-set work. It is also called the “floating” when roughed-in, floated and finally set for paper or painting.

Section, in Architectural Drawing and Design. A drawing which is prepared on the assumption that the structure or part of a structure is cut in two, so that the internal arrangement or construction is seen. Sections are almost always taken vertically and in coincidence with certain lines marked on the plan. The plan itself is, indeed, a “horizontal section,” assuming the building to be cut by a line parallel to the ground-level on which the structure is erected, thus showing the different positions which the various rooms assume one to another, and the thickness of the walls and partitions by which they are surrounded, position of door and window openings in the same, fireplaces, stairs, cupboards, etc. Der. From the Latin *secare*, to cut, *sectum*, cut. Syn. Fr. for “section,” *Section*—pron. sekk-see-onn; also *Coupe*—pron. coop; also *Profil*—pron. proh-feel; also *Orthographie interne*—pron. or-toh-grah-fee ahn-tairrn; Ger. *Durchschnitt*—pron. doorch-shnitt-riss—i.e. “a through-cut sketch”; also *Aufriss*—pron. owf-riss; also *Abriss*—pron. ahp-riss.

Syn. Fr. for "longitudinal section," *Coupe longitudinale*—pron. coop lohn-gee-tueh-deenahl; also *Profil longitudinale*, and *Section longitudinale*; Ger. *Längendurchschnitt*; also *Längenprofil*. Syn. Fr. for "transverse or cross-section," *Coupe transversale*; also *Profil en travers*—pron. proh-feel ahn trah-vairrs. Syn. Fr. for "section of an arch," *Section d'un arc*; Ger. *Durchschnitt eines Bogens*.

Secure, To make, in Building. Der. From the Latin *securus* (from *se*, itself, and *cura*, care—that is, free from care or danger, or, as we say, safe, or the present word *secure*). Syn. Fr. *Maintenir*—pron. maihn-ten-neerr; also *Assujettir*—pron. ah-sueh-jett-eer; also *Assurer*—pron. ah-suehr-ay; also *Affermir*—pron. ahf-fairr-meerr; Ger. *Festhalten*; also *Festmachen*—pron. fesst-mach-en; also *Befestigen*—pron. beh-fest-ig-en. Syn. Fr. for "to make a wall secure by propping up," *Assurer un mur*—pron. ah-sueh-ray uehn muehr; Ger. *eine Mauer festmachen*.

Segmental Arch, in Building. An arch the soffit or profile of the curve of which is less than a semicircle, or part of a circle. Der. From the Latin *segmentum*—that is, a part or one of the parts into which any body, as a circle or cylinder, is divided, and this from the Latin *secare, sectum*, to cut, or cut. Syn. Fr. *Segment d'un arc*—pron. saigmahn duehn arrk; Ger. *Bogenschnitt*—pron. boh-gen-shnitt. Syn. Fr. for "a segment of a saw"—that is, one of the parts of which a circular saw is made, the different segments making up the complete saw being bolted or screwed to the disc or central plate hung on the shaft—*Scie à segments*; Ger. *Bogenschnittsäge*. Syn. Fr. for "segment of a sphere," *Segment de la sphère* (sphere); Ger. *Kugelsegment* or *Kugelabschnitt*—pron. koo-gel-seg-mennt, ahp-shnitt.

Semicircular, in Construction. A term applied to a body or a form the outline of which is half a circle. Der. From the Latin *semi*, half, and *circulus*, a circle. Syn. Fr. for "semicircle," *Demicercle*—pron. deh-mee-sairr-kel; Ger. *Halbkreis*. Syn. Fr. for "half cylindrical," *Demi-cylindrique*—pron. deh-mee see-laihn-dreek; Ger. *Halbcylindrisch*—pron. hahlp-see-linn-drish. Syn. Fr. for "a half-partition," *Demi-cloison*—pron. deh-mee-klwah-zonn; Ger. *Halbscheidewand*—pron. hahlp-shy-deh-vand.

Semi-Norman Style, in Architecture. Those who look upon this as a distinct style in Gothic architecture give it the name of the "Transition," as it occupies a place between the earlier and pure Norman, with its rounded arches, and the earlier Gothic, in which the pointed arch is the feature. Others consider the style so called only a debased Norman, in which, while its peculiar characteristics are generally retained, the pointed arch is combined with them.

Separate, in Construction. To divide or

part asunder bodies which are in contact. Der. From the Latin *separare, separatum*, and this from *se*, itself, and *parare*, to put in order, to make ready. Syn. Fr. *Séparer*—pron. say-pah-ray; Ger. *Trennen*; also *Absondern*. Syn. Fr. for "to separate stones by means of wedges," *Faire parler la pierre*; Ger. *Stein absprenge*. Syn. Fr. for "to separate by wedges," *Fendre* (to cleave or split)—pron. fahn-derr; also *Séparer avec un coin*—pron. say-pah-ray ah-veck uehn kwahn. Syn. Fr. for "separating," *Séparant*—pron. say-parr-ahn; Ger. *Trennend*. Syn. Fr. for a "separating or dividing sieve," *Appareil de grenage*—pron. ah-parr-ayl deh gray-nahj; also *Grenoir*—pron. gray-nwahr; Ger. *Schiltsieb*—pron. shilld-zeeb.

Sesspool. A synonym for Cesspool (which see).

Set, a term used frequently in Building, such as "to set back"—that is, to raise a course of brick or stone, for example, a certain distance within the line of the course or courses below. Syn. Fr. for "set back," *Faire retraite*—pron. fairr reh-trate (the act of being set back is *Etre en retraite*); Ger. *Zurückweichen*—pron. tzoo-ruek vichen. Syn. Fr. for "to set well in cement or in mortar"—a phrase used to indicate that the stones or bricks are to be carefully built or "set" with mortar or cement—*Prendre*—pron. prahn-derr; Ger. *mit Ciment oder Mörtel fassen*—pron. mit see-ment oh-derr moehr-tel fahs-sen. Syn. Fr. for "to set straight or right," *Racheter*—pron. rah-sheh-tay; Ger. *Reguliren*—pron. ray-guhl-er-enn. Syn. Fr. for "to set (a stone) vertical or plumb," *Poser une pierre debout*—pron. poh-zay uehn (often as une) pee-airr deh-booh; Ger. *einen Stein aufrichten*—pron. ine-en stine ouff-rich-tenn. Syn. Fr. for a "set of tools," *Equipage*—pron. eh-kee-pahj; also *Assortiment d'outils*—pron. ah-sorr-tee-mahn dooh-teel; also *Paquet d'outils*—pron. pah-kay dooh-teel; Ger. *Zubehör*—pron. tsoo-beh-hoehr; also *Handwerkzeug*—pron. hant-vairrk-tsoig. Syn. Fr. for "to set fair," a term used in building synonymously with placing the parts correctly in relation to other parts, and accurately *per se*, as to set a stone plumb, *Beau fixer*—pron. boh feex-eh; Ger. *weiter Anwurf*—pron. tzvi-ter ahn-voorff. Syn. Fr. for "to set the teeth of a saw," *Donner la voie d'une scie*—pron. don-nay lah vwah duehn see; Ger. *die Zähne einer Säge aussetzen*—pron. dee tsay-nay ine-err zay-geh owss-zett-sen. Syn. Fr. for "setting up of (ashlar work) blocks of stone," *Posage des pierres*—pron. poh-sahj day pee-airr; also *Pierres mises à place*—pron. pee-airr meeze ah plahss; Ger. *Steine versetzen*—pron. stine-eh ferr-zett-sen. Syn. Fr. for "to set out work by a line or cord, as in bricklaying, masonry, etc., *Dressage en cordeau*—pron. dress-ahj ahn

kerr-doh; Ger. *nach der Seite richten* — pron. der zite-eh rich-ten.

Set Fair, in Plastering. The operation after roughing-in and floating, or when the work is pricked-up and floated.

Set-off, in Architecture. Also used frequently in the inverted form of "off-set." The term set-off indicates specially the points in a Gothic buttress where the end table or sloping part is divided from the next by oblique or sloping mouldings. The term generally indicates in *Building* a part which projects from the general structure, and specially the part at which a wall is suddenly reduced in thickness, as the gradually reduced walls to the different stories of a building, as where the ground-floor has a wall three bricks (lengths) thick, and the upper or attic story finishes with a nine-inch or one-brick wall. Syn. Fr. *Assise saillante* —pron. ah-seeze sahl-yahn; also (in the case of foundation work, where the courses gradually lessen in width), *Empâtement d'un fondement* —pron. ahm-paht-mahn duehnn fohnd-mahn; Ger. *Vorsprung einer Wand* —pron. fore-sproong ine-err vant. Der. The word "set" is from the Old English *settan*, to set, or it may come from the Latin *sedere*, *sedsum*, to sit.

Setstone, in Tools and Appliances. A synonym for whetstone—that is, a stone on which cutting tools, as chisels, are set or have a fine cutting edge given to them. The kinds of stone used to set or whet cutting blades are numerous, the best being the "Turkey" and "Arkansas." The "Turkey" whetstone or setstone is very fine in the grain, closely resembling in this respect, and also in colour, lithographic stones. The "Arkansas" is of a greyish-white or steel colour, exceedingly close in the grain, which takes a remarkable grip of the knife, etc., being "set," and causes it to take a keen, sharp cutting edge in a much quicker time than any setstone we have used. Syn. Fr. for "to whet or set" a cutting implement or tool, *Repasser sur la pierre* —pron. reh-pass-eh suehr lah pee-air; Ger. *mit einem Stein wetzen* —pron. mit ine-em stine wett-senn. Syn. Fr. for "setting," "whetting," or "sharpening" on a stone, *Repassage* —pron. reh-pah-sahj; Ger. *Abschürfen*. Syn. Fr. for a "setstone," *Pierre à repasser*; Ger. *Wetzstein*, or for finer knives, etc., *Oehlstein*.

Setting, in Plastering. "Stuff" plaster, so called, made so as to harden quickly.

Setting Coat, in Plastering. A composition of plaster which, for the best class of work, is made of pure stucco; for second-class work, of what is called "fine stuff" (which see).

Settlement, in Building. A term used to indicate the final position which a body, as a large block of stone or a wall, assumes when the sinking or "settling down" is

completed, in cases where the foundation has given way slightly. It is used also to indicate the final position which the courses in a wall assume after the mortar has set. The term is also used in a general sense as indicating what its final position will be when the work is completed. Syn. Fr. for "to settle" (down, to sink), *Se tasser* —pron. seh tass-eh; Ger. *Sich senken* —pron. zich zennk-en. Syn. Fr. for "settling," *Tassement* —pron. tahss-mahn; Ger. *die Senkung* —pron. dee zennk-oong.

Sewage, in Sanitary Building. The liquid or semi-liquid refuse which, passing from houses, is taken up and is carried on through and by the large sewers of a district to its place of final deposit. The liquid refuse of a house is sometimes named sewage, though the term house drainage is the more accurate term—this passing through the drains of a house and being delivered to the larger-sized drains, which are called sewers, and which receive, as above stated, the sewage proper. Syn. Fr. *Eaux Vannes* —pron. oh vahn—literally "the water of the water-gates"; the term *sewage* has been of late adopted by the French, who have also borrowed our sanitary system known under that name; also *Canals des rues publiques*—i.e. "channels or drains of the public streets"; Ger. *schmutziges Wasser*—i.e. dirty water—pron. shmoot-sigg-es vass-err.

Sewers, in Sanitary Building. The large-sized drains or covered channels by which the house drainage matters are taken up and carried away and taken to the place of final deposit. Der. The term "sewer" is from the Norman-French *sewuire* or *seuire*, and this from the French *suivre*, to follow, or from the Old French *issir*, to flow, or *essuyer*, to wipe or dry up. Syn. Fr. *Egout* —pron. ay-gooh; Ger. *Schleuse für das schmutzige Wasser* —pron. shloy-seh; also *Abzug* —pron. ahp-tsoog.

Shaded, in Architectural and Building Drawing. A term generally applied to indicate that the drawings are coloured. More correctly it denotes that parts which are round or cylindrical are coloured in graduated tones in order to give the rounded appearance; also that the shadows thrown by certain parts are put in. Syn. Fr. for the general term of "shade" or "shading," *Teinte* —pron. taiht; Ger. *Tinte* —pron. tin-teh. Syn. Fr. for "shadowing," where the parts are shown as rounded or with shadows projected, *Gradation de couleurs* —pron. grah-dah-seon day kool-euhr; Ger. *Schattirung* —pron. shah-teer-oong.

Shade Lines, or Shaded Lines, in Architectural and Building Drawing. Lines given to outline drawings to indicate the parts which project before other parts. They are placed at the right hand and the lower sides or lines of projecting objects;

the light being supposed to come from the upper side and the left hand. In French drawings the shade lines are placed at the left hand and at the bottom sides. Shade lines are indicated by being much thicker or broader than the other lines of the drawing. (Hence) Syn. Fr. *Traits de force*, or strong lines—pron. tray deh forrss; also *Gros traits*, heavy lines—pron. groh tray (t)s; Ger. *Kraftlinien*—pron. krafft-leen-yen.

Shaft, in *Architecture*. That part of the column of an "order" which is between the base and the capital in Classical styles. In Gothic architecture the shaft is considered by some as merely an ornamental, not a constructive, feature, by which the work of supporting the heavy superincumbent mass, as the entablature, etc., of a Classical arch, is done. A more correct view of the office of the shaft in Gothic architecture is that which assigns to it a constructive as well as a decorative part, though that last is perhaps its chief characteristic. Syn. Fr. for "shaft of a column," *Tige de colonne*—pron. teej deh koll-onn; Ger. *Säulenschaft*—pron. zoy-len-shafft. Syn. Fr. for the "shaft of a chimney," *Tuyau de cheminée*—i.e. a chimney tube—pron. twee-oh deh sheu-mee-nay; Ger. *Feuerkasten*—pron. foy-err-kahss-ten. Syn. Fr. for a "hammer shaft" or handle, *Manche de marteau*, or simply *Manche*—pron. mahnsh, or mahnsh deh mahr-toe; Ger. *Hammerhelm*, or simply *Helm*. Der. The term shaft is from the Old English *scaeft*, or the German *Schaft*, both meaning a long cylindrical body.

Shaken Stuff, in *Materials*. Timber split at the fall or felling of the tree, or by the action of the sun, etc. Syn. Fr. *Fendillé*—pron. fahn-deel-yea; also *Cadrané*—pron. kah-drah-nay; Ger. *Holzsprünge*—pron. holhts-spruehng-eh. Syn. Fr. for "a shake, a chink, a fissure in wood," *Cadran*—pron. kah-drahn; also *Cadranure*—pron. kah-drah-nuehr.

Shakiness, in *Building*. A term used to indicate insecurity in the structure. It is more frequently applied to timber as indicating the existence of shakes (see above) or having a tendency to split. Syn. Fr. *Roulure*—pron. rool-uehr; Ger. *Holzkräftigkeit*—pron. holhts-kreff-tich-kite. Syn. Fr. for "shaking," as in an unsteady structure, *Agitation*—pron. ah-jee-tah-see-on; Ger. *Rütteln*—pron. rett-eln (our word rattling comes from this). Syn. Fr. for "to shake or vibrate," *Brouter*—pron. brooh-tay; Ger. *Schnarren*—pron. shnarr-en. Der. Our word is from the Old English *scacen*, to tremble.

Sham, in *Building*. A term applied to a part which simulates or imitates the real object, as a sham window or sham door, there being no real or practicable entrance or void. The synonym "false" is also used. Syn. Fr. for "false" or "sham," *Imité*, *faux*,

or *simulé*—pron. eem-ee-tay, foh, see-mu-lay; Ger. *Blind*, *Falsch*—pron. blinnd, fahlsh. Syn. Fr. for "false or sham door," *Porte imitée*, *fausse* or *simulée*—pron. pohrrt eem-ee-tay, fohss, see-mu-lay; Ger. *falsche Thüre*. Syn. Fr. for "false or sham window," *Fausse fenêtre*; Ger. *falsches Fenster*.

Shank, in *Tools*. The part which connects the working or cutting part of a tool, such as the cutting part of an auger or gimlet, with the handle, which is fixed or secured to the upper part of the shank in various ways. Syn. Fr. for "shank," *Queue*—i.e. a tail—pron. keuh; also *Attache*—pron. ah-tahsh; also *Tige d'un outil*—pron. teej duhn ooh-teel; Ger. *Stangenarm*; also das *Ohr*—i.e. the ear. Syn. Fr. for the "shank of an auger," *Tige*—pron. teej; Ger. *die Stange*—pron. die stang-eh (our word "stang" comes from this, meaning the shank of a tool, as a file, or end which passes into the handle). Syn. Fr. for "shank of a gimlet," *Fut*—pron. fuuh; Ger. *die Angel*. Syn. Fr. for the "shank of a chisel," *Tranchet de ciseau*—pron. trahn-shay deh seez-oh; Ger. *Stiel eines Meissels*—pron. steel ine-css mice-ells. Syn. Fr. for the "shank of a key," *Tige de clef*—pron. teej deh clay; Ger. *Schlüsselschaft*—pron. shluess-ell-shafft. Der. Our word shank is from the Old English *scanc*, the long bone which goes from the knee to the foot.

Shears or Sheers, in *Building Appliances*. An arrangement of long timbers, as poles or small logs, frequently placed in the form of a triangle, from the upper part of which is suspended the pulley sheave, and by which blocks of stone, etc., are raised. Another form of shears is made of two poles, etc., inclined to each other, separated for a considerable width at foot, and meeting at top, at which point the pulley sheave is secured. The poles are inclined forward, so that the head and pulley sheave are considerably in advance of the lower part or feet of the poles on which they rest, and so that the pulley sheave hangs over the place where the body lies to be lifted. The two poles thus inclined are prevented from falling—and a resistance is at the same time offered to the strain put upon the pulley by the act of raising the weight—by ropes and chains secured to the head and to posts or other securely fixed parts placed at a considerable distance behind the shears. These ropes, thus placed at a considerable angle, are termed technically "guys" or "guy ropes." This arrangement is much used in shipbuilding; hence one of the German synonyms. Syn. Fr. for "shears," *Cubestan* (our word capstan comes from or is a corruption of this)—pron. kuch-bes-tahn; also *Chèvre à haubans*—pron. shay-verr ah hoh-bahn—that is, a lifting crab for ships' shrouds; if for masts, *Chèvre à mâts*; Ger.

Krann (our word crane comes from this); also *Mustenkrann*—i.e. a mast crane.

Sheave of a Pulley, in Tools and Appliances. That part, generally made of wood provided with a slot, on which the pulley runs, and through which the rope is passed, keeping it in its place in the groove of the pulley. The word seems to be a corruption of "sheath"—it means at all events the same thing—although it is otherwise presumed to be derived from the German *scheibe*, a disc, or the Danish *schjive*, a slice of a body. *Der.* The term "sheath" is from the Old English *scaeth*, to cover or protect. Syn. Fr. for sheave of a pulley, *Roue de courroie*—pron. rooh deh koor-wah; Ger. *Riemscheibe*—pron. reem-shibe-eh. The "sheave" is often used as a pulley, or in place of it, the rope passing through the slot and over a rounded or semicylindrical and smooth surface.

Shed, in Building. A rough structure generally made of wood run up for a temporary purpose, such as sheltering masons, etc., while working. It is also used as a permanent structure in cases where economy is studied, as in workshops and farmyards and the like. Sheds are usually constructed against a wall, which thus forms the back, and the roof slopes from the wall to the front of shed—hence called a shed-roof or pent-house roof. Where the form of roof known as the "span" (see Roof) is used for sheds, they are usually isolated structures independent of existing walls, and are more elaborately constructed. In the case of railway sheds, the materials are generally more costly than those of ordinary sheds, and are frequently provided with iron roofs of a more or less elaborate character. Syn. Fr. for "shed," *Hangar*—pron. hahng-ahr; Ger. *Schuppen*—pron. shoop-pen. Syn. Fr. for "pent-house roof," *Appentis*—pron. ah-pahn-tee; Ger. *Schuppendach*. Syn. Fr. for "carriage shed," *Chapuis*—pron. shapp-wee; Ger. *Wagenschuppen*—pron. vah-gen-shoop-pen.

Sheet, in Materials. Syn. Fr. for "sheet of paper" (for drawing, etc.), *Feuille de papier*—feynll deh pah-pee-ay; Ger. *Papierbogen*—pron. pah-peerr-boh-gen. Syn. Fr. for "sheet of glass," *Table de verre*—pron. tah-bell deh vairr; also *Lagré*—pron. lah-gerr; Ger. *Glastafel*—pron. glahss-tah-fell; also *Glaslager* (lah-gerr). Syn. Fr. for "sheet iron," *Fer en tôle*—pron. fairr ahn tole; Ger. *Eisenplatte*—pron. i-zenn-plaht-teh. Syn. Fr. for "sheet iron corrugated," *Tôle ondulée* (undulated plate)—pron. tole ohn-dueh-lay; Ger. *gewellte Eisenplatte*—pron. geh-vell-teh i-zenn-plaht-teh. Syn. Fr. for "sheet iron galvanised," *Tôle galvanisée*—pron. gahl-van-nee-zay; Ger. *galvanisirte Eisenplatte*—pron. gahl-vahn-ee-zeerr-teh. The term "zincd" is often used on

the Continent, as in Fr. *Tôle zinguée*—pron. zaihn-kay; and Ger. *verzinkte Eisenplatte*—pron. ferr-tsink-teh. Syn. Fr. for "sheet lead," *Feuille de plomb* (plohm); Ger. *Bleiplatte*—pron. bly-plaht-teh. Syn. Fr. for "sheet copper," *Cuivre en planches*—pron. kwee-verr ahn plahnch; Ger. *Kupferplatte*—pron. koop-ferr. Syn. Fr. for "sheet zinc," *Zinc en feuille*—pron. zaihnk ahn fweel; Ger. *Zinkplatte*—pron. tsink.

Sheet Piling, in Foundation Work. Small piles driven between the larger piles in a cofferdam, or a space enclosed with small piles. Sheet piles are driven in very closely together, so as to prevent the water from getting into the space enclosed by them. The term is also used as indicating the covering of the face of piles with planks, hence the Syn. Fr. *Planches de remplissage*; for "sheet piling," *Palplanche*—pron. pahl-plahnsh; Ger. *Spundpfähle*—pron. spoond-pfayl-oong; also *Spundwand*—pron. spoond-vant, a hole wall—i.e. a wall to stop up holes; also *Vorpfähle*—pron. fore-pfayl-oong.

Shelf, in Joinery. A flat piece of board, of varying width and thickness, projecting from the surface of a wall, and at a convenient height from the floor, making a surface or resting-place for various household objects, as crockery, provisions, etc. There is no contrivance so simple as this, or more valued by the careful, well-managing housewife than the shelf, and many a corner which is otherwise unoccupied and conveniently placed might be utilised by shelves, which are otherwise lost, to the great inconvenience of the housekeeper. All closets, larders, etc., should be well supplied with shelves, erring rather on the side of too many than too few. In the indifference with which too many builders regard this department of household conveniences, the household maxim is forgotten—"everything in its place," for this is not possible unless there be provided a "place for everything." The houses of the working classes are notorious examples of this forgetfulness. Shelves are supported by the walls, being let in when the walls are being finished; but when they are of great length, or have heavy weights to bear, they should have in addition brackets placed under them, at distances best suited to resist the pressure of the shelf and the articles it carries. *Der.* Our word shelf is from the Old English *scelfe*, or the Danish *schelf*, a board or plank raised above the level of the floor, on which to place drinking vessels, etc. Syn. Fr. *Tablette*—pron. tah-blett; also *Rayon*—pron. ray-on; Ger. *Regal*—pron. reh-gahl; also *Gestell*—pron. geh-stell.

Shell Marl, in Materials. A species of marl in which shells or the remains of shells—shelly stuff—are more or less abundant.

Syn. Fr. *Falun* — pron. fah-leuhn; Ger. *Muschelerde*—i.e. mussel earth—pron. moo-shell-airr-deh.

Shell Work, in Architecture and Building. A species of ornamental work in which shells form the principal feature. In some districts near the sea it is applied to that kind of wall-work in which shells are imbedded in the mortar of exterior surface, in disposition more or less ornamental. Syn. Fr. *Coupe*—pron. koop; Ger. *schales Wandwerk*.

Shelter Shed, in Farm Architecture. A shed erected in the fields, or some place outlying from the central or farmyard buildings, in which cattle can take shelter from the rain, snow, wind, etc. The shelter shed ought to form a feature of farm structures more frequently met with in farm practice than it is. The more clearly the principles of cattle feeding and rearing are understood, the more certainly will the shelter shed form a part of every farm on which stock is kept. Syn. Fr. *Hangar*; also *Hangar pour l'abri de mauvais temps*—literally “shed for shelter from bad times” (*mauvais temps* the synonym for bad weather); Ger. *Schirmhaus*—i.e. shade house, shelter from the sun—pron. sheerm-house; also *Schauerhaus*—i.e. a shower house, shelter from the rain—pron. show-err-house; also *Schutzhaus*.

Shelving Ridge, in Building. A term sometimes used to denote a ridge piece or ridge capping, which slopes or shelves. Syn. Fr. *Dos d'âne*—literally “back of an ass”—pron. doh dahn; Ger. *Eselsrücken*—pron. ay-zells-rueck-en.

Shield. See Escutcheon, or Scutcheon.

Shingle, in Building. Flat pieces of wood, rectangular in form, cut into something like the shape of, and used to effect the same object as, a slate in covering roofs. They are very largely used in the United States, where timber is plentiful, and where they are quite in keeping with the material of which the body of the house is made, as in the log hut and the more pretentious frame (wood) or framed house. Syn. Fr. *Bardeaux*—pron. bahr-doh; also *Echandole*—pron. ay-shahn-dohl; Ger. *Schindel*—pron. shin-dell; also *Dachschindel*—i.e. roof shingle. Syn. Fr. for “shingling” (a roof), *Couverture en bardeaux*—pron. koooh-vairr-tuehr ahn bahr-doh; Ger. *Schindeldach*, shingle roof—pron. shin-dell-dach.

Shivers, Stone, in Masonry. The pieces or chips taken off or struck off from stones in the dressing and preparing them for setting in walls. They are largely used for filling in or packing the spaces or interstices left in the heart or central space of walls between the large stones, being well grouted in with mortar in a thin condition. It is only in poor or defective work that shivers are so largely used in this way, as they give

a wall apparently, not actually, solid. Syn. Fr. *Garnis pour un mur en pierre taillée*, dressing for an ashlar wall—pron. gahr-nee poohr uhnn muehr ahn pee-air tahl-yeh, or simply *Garnis*, or *Garnis pour un mur*; Ger. *Fallsteine*—pron. fahl-stine-eh. Der. Our word shiver is from the German *schiefen*, to splinter—pron. shee-fen.

Shoar, in Building. A timber prop placed in an oblique position, or at an angle more or less acute to the ground-level line, and used to prop up or secure a wall during alterations. When the prop is placed vertically it is called a “dead shoar.” Syn. Fr. for “to prop or shoar up,” *Etaier*—pron. eh-tah-yeh; also *Buttre*—pron. bueh-tay; also *Etançonner*—pron. ay-tahn-sonn-ay; Ger. *Unterstützen*—pron. oohn-terr-stuetzen; also *mit einer Steife stützen*—pron. mit ine-err stife-eh stuet-sen. Syn. Fr. for a “prop,” *Etai*—pron. ay-tay; also *Soutien*—pron. sooh-tian; also *Etrésillon*—pron. eh-tray-seel-yon; Ger. *Steife*—pron. stife-eh; also *Wandspreize*—pron. vant-spy-zeh.

Shoe of a Pile, in Foundation Work. The pointed sheath or shield of wrought or cast iron with which the foot of a pile is armed, in order to enable it to enter the ground more easily and to pass through and resist obstacles. The shoe thus acts as a protector and also as a penetrator. Syn. Fr. *Sabot d'un pieu* or *pilotis*—pron. sah-boh duhn pee-eu, or pee-loh-tee; Ger. *Schuh vom Pfahl*—pron. shooh fomm pfahl. The cast-iron box built into or resting upon a wall to receive the end of a beam or girder or rafter is called a shoe. Syn. Fr. for the “shoe for a beam,” *Sabot d'un poutre*—pron. saw-boh duehn pooh-terr; Ger. *Schuh von Balken*. Syn. Fr. for to “shoe a pile,” *Saboter un pieu*—pron. sah-boh-tay euhn pee-euh; also *Ferrer un bout d'un pilotis*—i.e. to iron the end of a pile.

Shoot, Coal, in Building. The inclined way down which the coals are shot or sent to the cellar below the ground level. The shoot is frequently a simple aperture in the roof of the coal cellar, which roof forms the pavement of the street, the hole being covered by an iron plate or grid—a fruitful source of accidents in towns. Where possible, the place by which coal is delivered to a cellar below the ground level should be at the back of the house. Syn. Fr. *Décharge*—pron. day-sharjh, or *Lieu* (place) *de décharge*—pron. lieuh day-sharjh; Ger. *Schüttloch*—pron. shoot-loch. Der. Our word “shoot” is from the Old English *sceotan*, to send with force.

Shop, in Street Architecture. A structure so arranged in the interior as to afford space for the storing up and the display of goods for sale of various kinds. Shop architecture affords good opportunities to the architect or builder for the display of skill in arrange-

ment and taste in designing the ornamental features of the structure. Syn. Fr. for "shop," *Boutique*—pron. booh-teeek; also *Magasin*—pron. mah-gah-zaihn. The latter term is applied to shops of large accommodation and of great extent, the term *boutique* being confined to the smaller buildings. Syn. Ger. *der Laden* or *das Magazin*—pron. derr lah-denn, dass mah-gah-tseen.

Shore, in Building. See Shoar.

Shoulder, in Carpentry and Joinery. That part of a beam or a piece of timber which is cut to afford a butting or resting-place for the end of another, when parts are at different levels, as the face or "table" (see Scarf) of a rebate and the general surface of the beam or wood, the vertical end joining them is called shoulders. The flat face or faces at the side of a tenon—that is, those on which the piece rests when the tenon is driven home into the mortise from the shoulder of the tenon. Der. From the Old English *shulder*, or the German *Schulter*, both being derived, as some philologists have surmised, from Icelandic *skylda*, to cover, to shield. The Old English word above given means the joint connecting the arm with the trunk of the human body. Syn. Fr. for "shoulder" in carpentry, *Arasement*—pron. ah-rass-mahn; also *Epaulement*—pron. eh-pole-mahn (*épaule*, the shoulder); Ger. *Holzscharnierschulter*, "a wood joint shoulder," or *Balkenschulter*, "beam shoulder," or simply *Schulter*—pron. shooll-terr; also *Balkenbrust*, "a beam breast"—pron. bahl-kenn-broo-est.

Shovel, in Tools and Appliances. As a lime shovel. A species of spade, but generally of greater width, and with the blade more or less turned up at the edges, in order to retain the material lifted in greater quantity than a flat-surfaced and narrower-bladed spade would do. Masons' and bricklayers' shovels are generally heart-shaped in form, with blade more or less pointed. Syn. Fr. for "shovel" generally, *Pelle*—pron. pell; Ger. *Schaufel*—pron. shough- (as in plough) fell. Syn. Fr. for "mortar shovel," *Pelle pour mortier*; Ger. *Mörtelschaufel*.

Shrinkage, in Timber Work. A term used to indicate the loosening of joints by the contraction of the fibres of the wood through the drying of the timber, or the opening of the joints in pieces put together in the direction of their length. Shrinkage is also applied to the general lessening in bulk through the drying up of the moisture contained in the timber. Shrinkage in timber work is generally allowed for by driving joints home as tight as possible; but in all cases undue shrinkage is provided against by using well and thoroughly seasoned timber. The shrinkage in the woodwork of domestic buildings, such as in floors, window casings, door panels, and

the like, is caused chiefly by the employment of unseasoned and therefore slightly cheaper wood. Der. The word "shrink" is from the Old English *srincan*, to wrinkle or become shrivelled up. Syn. Fr. for "to shrink," *Se gripper*—pron. seh greep-peh; also *Rétrécir*—pron. ray-tray-seer; Ger. *Einschrumpfen*—pron. ine-shroomp-fen; also *Schwinden*—pron. shveen-den. Syn. Fr. for "shrinkage" in timber or wood—*Retraite de bois*—pron. reh-trate deh bwah; Ger. *Holzschwinden*—pron. holts-shvin-den. Syn. Fr. for "shrinkage," *Contraction*—pron. kon-trakh-see-on; Ger. *Einschwinden* or *Einschrumpfen*.

Shutter, in Joinery. A part of timber or wood construction generally applied to windows. In its simplest form it is a flat board, or if of considerable width of several boards jointed together—hung to one side of the window frame in the case of an inside shutter—to the wall or to the reveal of the window opening in that of an outer, so that it can be closed in upon the window and secured to the opposite side of the casing or reveal. Generally shutters are fixtures—that is, hung at one side, so as to fold back against the wall or into what are called "shutter boxes" (which see), thus opening the shutter and admitting the light through the glass; but in the case of shops, etc., shutters are movable, and capable of being taken down and removed till again used, or if fixtures are of the class known as revolving shutters (see below). Der. The word "shut" is from the Old English *scittan*, to close up, to shut. Syn. Fr. for "shutter," *Volet*—pron. voh-lay; Ger. *Fensterladen*—pron. fennsterr-lah-den.

Shutter Bolt, in Ironmongery. The iron bolt fitted to a shutter, either outside to secure it from being driven to and fro by the wind, or inside to prevent those outside the house opening the shutter. In the first of these two cases the bolt enters an iron ring or staple, leaded into the wall; in the second it enters a hole sunk in the reveal or side of the window. Syn. Fr. *Targette (de fenêtre)*—pron. tahr-gett; also *Verrou*—pron. ver-rooh; Ger. *Schubriegel*—pron. shoohb-ree-gell.

Shutter Boxings, in Joinery. The receptacles placed at the sides of windows in the interior of apartments, into which the shutters fold back to be concealed or placed out of the way when not in use. Shutter boxings are rarely used on the Continent—the casement window there so generally used not admitting of the arrangement. Inside shutters are, therefore, seldom used—windows there being almost universally shut up, or the light partially excluded, by outside shutters or jalousies, made in two leaves or pieces, meeting when closed in the centre of the window, one being hinged to

the outside wall at one side of it, the other to the opposite side. These outside shutters are not solid—wholly excluding the light, but partially admit it by having the central space of the frame of the shutter filled up with laths or narrow pieces placed at an angle, so as to form a series of what we call *louvre* or luffer boarding. When these shutters are opened and fold against the wall, they are prevented from being driven to and fro by the wind, or from being closed, by catches which are let into the wall. Folded back and open, these shutters form a distinguishing feature of the house and street architecture of the Continent. There are, from what we have said, no French or German synonyms for the term shutter boxings; the nearest approach in French is *Boîte des volets de la fenêtre* (box of the shutters or wings of the window), or *Réceptacle des volets de la fenêtre*—pron. ray-sepp-tah-kel; Ger. *Fensterladenkasten* or *-büchse*, window-shutter chest, or box—pron. kass-ten or buek-say.

Shutter Latch, in *Ironmongery*. The appliance attached to outside folding shutters or jalousies, so that when they are thrown open and back against the wall the latch catches and retains them in position till they are released by hand, when it is desired to close them. Syn. Fr. *Loquet du volet*—pron. loh-kay du voh-lay; Ger. *Fensterladenlinke*—pron. fenn-sterr-lah-denn-lin-keh.

Shutter, Revolving. A form of shutter generally used to close and protect shop windows. The shutter is made of iron plates horizontally disposed, and so jointed together that they form a flexible sheet, so to call it, capable of being passed round rollers, and so hung and adjusted that, by simple and easily-acted-upon mechanism, they can be pulled down to cover the window opening or shoved up to open it; the lats or horizontal pieces having some resemblance to the bars in a jalousie or open latticed shutter (see Shutter). Syn. Fr. *Volet jalousie*—pron. voh-lay jah-loo-see; the more correct term would be *Volet tournant*—pron. voh-lay toohr-nahn; Ger. *Gitterfensterladen*—i.e. a lattice-like or cross-bar window shutter—pron. git-terr-fenn-sterr-lah-den.

Sideboard, in *Cabinet Making*. A piece of furniture generally placed against the side wall of a dining-room, frequently in a recess specially designed and constructed for it—hence part of its name. Its purpose is to afford on its upper surface a species of table or board—hence the second part of the name—on which to place various articles required for the service of dinner. In some forms the supports at each end are so formed that they afford space for small cupboards, which, variously shelved and provided with

drawers, afford space for the storing away of the various household articles. Syn. Fr. *Buffet*—pron. buéf-fay; also *Dressoir*—pron. dress-wahr; Ger. *Anrichtetisch*—pron. ahn-rich-teh-tish (from *anrichten*, to prepare to dress or dish up, and *Tisch*, a table)—so that literally the synonym means a table on which dishes dressed up are placed to be ready for service at table; also *Schenktisch*—*Schenk*, a cup-bearer (from *schenken*, to give or pour forth—thus *Wein einschenken*, to pour wine into a goblet or cup). Der. Our word “side” is from the Old English *side*, or the German *Seite*, the border or outer edge of a body, the side or sloping part of a hill or rising ground.

Side Aisle, in *Architecture*. (See Aisle.) Syn. Fr. for side, little, or low nave, *Nef latérale*; also *Petite nef*—pron. neff lah-tare-ahl, pet-eat neff; Ger. *Seitenschiff*; side nave—pron. zite-en-shif; also *Nebenschiff*—pron. nay-ben-shiff.

Side Cutting, in *Roadmaking*. The excavating work done at the side of a cutting or part hollowed out of a rising ground or knoll. Syn. Fr. *Tranchée latérale*—pron. trahn-shay lah-tare-ahl; Ger. *Seitenschnitt vom Wege*—pron. zite-en-shnit fom vay-geh.

Side Culvert, in *Roadmaking*. The drain, of dimensions larger than the transverse drains, laid along a road to carry off the water from the road or from side cuttings, etc. Syn. Fr. *Aqueduc latérale*—pron. ah-keu-duuk lah-tay-ahl; also *Conduit d'eau latérale*—pron. kon-dwee doh; Ger. *Seitenwasserzug*—pron. zite-en-vass-err-shoog, or *Seitenwasserleitung* (lite—ong); also *Seitenaquaduct*—pron. site-en-ah-quah-doochk.

Side Gutter, in *Roadmaking*. The open channel running along the length of road between the curb, kerb, or curbstone (which see), and the footpath. Syn. Fr. *Rigole latérale* or *longitudinale*—pron. ree-goal lon-jhee-tue-dee-nahl; also *Canal d'un pavé*—pron. kah-nall doohn pah-vay; Ger. *Seitenrinne*—pron. zite-en-rin-neh.

Side Posts, in *Carpentry*. Vertical pieces of timber placed in a roof-truss, as a queen-post truss, and placed at each side of and equidistant from the central point of the truss. Syn. Fr. *Montant d'un comble* (roof)—pron. mon-tahn duhn coh-m-bel, or *Montant d'un chassis* (framework)—pron. shah-see; Ger. *Seitenstück*—pron. zite-enn-stuek; also *Rahmenseitenstück*—pron. rah-merr-zy-ten-stuek.

Side View, in *Architectural and Building Drawing*. Sometimes called a profile. The side view may either be in perspective or in plane projection, in which case it is more generally and accurately termed a side elevation. Another synonym with us is “end view,” or “west” or “east elevation.”

Syn. Fr. for these terms: *Vue de côté*—pron. vue deh koh-tay; *Élévation de côté*—pron. ay-lave-ah-seon; also *Élévation latérale*; Ger. *Seitenansicht*—pron. zite-enn-zicht.

Side Wall, in Masonry and Bricksetting. A wall which runs at an angle to the front wall. Syn. Fr. *Mur de côté* or *Mur latérale*—pron. muehr lah-tare-ahl; Ger. *Seitenmauer*—pron. zite-en-mow-err.

Siding, in Building. Although this term is generally employed to indicate the part set aside in railway stations, etc., to admit of the trains being moved—shunted—from the main lines, still it is sometimes used by builders to point out some part of the yard or of the site of a house set “aside” for certain materials, as a siding for bricks, etc. Syn. Fr. *Changement*; also *Côté pour matériaux*—pron. shahnj-mahn, koh-tay poohr mah-tare-ee-oh; Ger. *Baumaterialien-stelle*—i.e. “building material stand”—pron. bough-mah-tair-ee-ah-lee-enn-stell-eh.

Sieve, in Building. An appliance by which mortar and sand can be sifted, and stones and other extraneous substances separated from that which is required in purity. It consists of a circular hoop or ring of hard wood, with one of its sides filled in with the sifting or screening (see Screen) wires, which, being crossed and reticulated, form openings through which the material to be sifted is passed, while the substances desired to be retained are kept from passing through, and being collected at one side of the sieve are thrown aside. While one man works the sieve, shaking it to and fro and occasionally tilting and throwing up its contents, another man fills it with the unsifted materials. Sieves are made with their wirework openings of various degrees of fineness of “mesh,” the interstices being so called. Syn. Fr. *Tamis*—pron. tah-mee; also *Crible*—pron. kree-bel; Ger. *Sieb*—pron. zeeb. Syn. Fr. for “sieving screen,” *Passire*—pron. pah-seer; also *Egrappoir*—pron. eh-grapp-wahr; Ger. *Sieb*—pron. zeeb.

Sill, in Building. Sometimes spelt “cill.” The lower part of a window, usually made of stone even in brickwork, which terminates the window and on which the frame rests. It projects some distance before the face of outer wall, the upper face from line of window-frame to outer edge being made sloping outwards, so as to carry off the rain falling on it. To prevent the water from finding its way from the edge or face of the sill to the wall behind, thus causing the latter to be damp, a groove is run along the under side of the projecting part of sill near the edge. This groove stops the water from flowing from sill to wall, as it cannot cross the groove, but drops from its outer edge to the ground.

This grooving is termed “weathering.” Syn. Fr. for “sill,” *Seuil de fenêtre*—literally “the threshold of a window”—pron. seueel deh feh-nay-terr; Ger. *Fenstersohle*—literally “the sole of the window”—pron. fenn-sterr-zoh-leh. Door sill, indicating a wood batten, which sometimes rests upon the doorstep, and which terminates the door proper, preventing the wet from being blown into the house from the top of step, but offering an awkward impediment to entrance and exit, and is but rarely used. With some the sill of a door is synonymous with the step. Syn. Fr. *Seuil de porte*; Ger. *Thürsohle*. Syn. Fr. for “sill of timberwork,” as of a partition, *Sablière*—pron. sah-blee-airr; Ger. *Grundbalken*—pron. groond-bahl-ken. Syn. Fr. for “sill” in architecture, *Tablette d'appui*—pron. tah-blett dahp-pwee; Ger. *Sohlenband*—pron. zoh-len-bant. Der. The word sill is from the Old English *syl*, a foundation, or to lay a foundation, or from the Latin *solum*, a foundation.

Single Hung, in Joinery. A term used to indicate that in a window one only of the sashes, the lower or upper, is “hung” or suspended by ropes or cords, pulleys and weights, so that it can be raised or lowered as desired.

Single Measure, in Joinery, means that a door is flat-surfaced or “square,” as it is termed, on both sides—that is, it is not moulded or panelled. “Double hung” means that the door is moulded on both sides. When the work is square on one side and moulded on the other, it is termed “measure-and-half.”

Sink, in Domestic Architecture. An open receptacle of some eight or nine inches in depth, and of varying length and breadth according to circumstances, placed in kitchen or scullery, in which to throw refuse water, which is led off to the drain by a pipe, this latter being “trapped” to prevent the bad odour from passing from the drain to the house. The “sink” is much more largely used in Scotland than in England, in which latter part of the kingdom its place is taken by the “slopstone”—a contrivance much more likely to minister to habits of cleanliness, being of large area and shallow, whereas the sink is of small area and of considerable depth, and is thus more difficult to clean out, and is apt to hide away filthy matter more readily, than the open exposed slopstone. Syn. Fr. for “sink,” *Couloir*—pron. koohl-wahr; also *Passoire*—pron. pass-wahr; also *Egout*—pron. eh-goo; Ger. *Gosse*—pron. gos-seh.

Sink, in Building. To fall, to subside or drop from gravitation. In the more strictly technical sense in building it means to dig, as to dig a foundation, to dig, sink a well.

Der. The word sink is from the Old English *sincan*, or from the German *senken*, to sink

Syn. Fr. for "to sink," in the sense of "digging," *Creuser*—pron. kreuh-zay; Ger. *Sinken*. Syn. Fr. for "to sink a foundation," *Creuser une fondation*—pron. fohnn-dah-seeon; Ger. *Grund sinken*. Syn. Fr. for "to sink a well," *Creuser un puits*—pron. pwee; Ger. *einen Brunnen senken*—pron. in-enn broon-nenn zenken.

Sinking, in Building. A term used to indicate the subsidence of a structure through the giving way of the foundation. Syn. Fr. *Affaissement* (from *affaiser* [ah-faze-eh], to sink, to press down)—pron. ah-faze-mahn; also *Enfoncement* (from *enfoncez*, to sink, to bear down)—pron. ahn-fonss-mahn; Ger. *Sinken*—pron. zin-ken.

Site, in Building. The spot or piece of ground on which the house is actually built—the term "ground" or "grounds" referring to the plot of land surrounding the house, as the approach, garden, lawn, site for stabling and outhouses, etc., or the extent of land belonging to or connected with the house, considered as a whole. The choice of a good "site" involves many considerations, such as aspect—its relation to the sun, locality—its relation to the surrounding neighbourhood, on which some nuisance may exist, or some piece of water, etc., unhealthy in its influence; and further, the nature of the soil itself, whether likely to be damp, etc., or whether, if in the neighbourhood of towns or in streets, the soil be natural, or what is called "made"—than which latter nothing is more likely to be prejudicial to health. Der. From the Latin *situs*, a fixed place (from *sedere*, to sit, set, or lay down). Our technical term in mechanics generally, *in situ*, is derived from this, and means that a certain part of construction is in its proper place—as a beam or girder is said to be *in situ* when in the place it is designed to occupy. Syn. Fr. for "site of a building," *Emplacement d'un bâtiment*—pron. ahm-plahss-mahn duhn bah-tee-mahn; "of a house," *d'une maison*—pron. deuhn may-zon, or *Locale d'une maison*; Ger. *Hausstelle*—pron. house-stell-eh. Syn. Fr. for "site of a bridge," *Emplacement d'un pont*—pron. pohng; Ger. *Brückenstelle*—pron. bruek-en-stel-leh.

Sitting-room, in Domestic Architecture. An apartment in which the family meet on ordinary occasions, or receive visitors *en famille* or without ceremony. A synonym often used is "parlour." In dwellings for the working-classes and third-class houses it is the best room of the cottage or house, corresponding to the dining-room and drawing-room of better-class houses, and serving the purposes of both. Syn. Fr. *Chambre ordinaire*—pron. shahm-berr orr-dee-nairr; also *Appartement ordinaire*—pron. ah-parr-temahn, or the synonym *Parloir*—pron. parr-lwahr; Ger. *Empfangszimmer*—i.e. "a recep-

tion chamber," which term, however, is not definite enough as it applies equally to the drawing-room of the house. The term *Wohnzimmer*—i.e. dwelling or living chamber or room—is more precise, and *gewöhnliches Zimmer* still more so, as it is equivalent to the French ordinary room; also *Sprechzimmer*, a talking or "speak-a-word" or consultation chamber.

Size, in Construction, refers to bulk or dimensions, as large size, small, greater or less size. Syn. Fr. *Volume*—pron. voh-luehm; also *Grandeur*—pron. grahn-deuhr; Ger. *Grösse*—pron. groehs-seh.

Size, in Painting. A mixture of a water colour with melted glue, the effect of which is to fix the colour or whitewash on the wall or surface to be painted. Without the size the colouring material would rub off. Syn. Fr. *Détrampe*—pron. day-trahmp; Ger. *Leimfarbe*—pron. lime-fahr-beh—i.e. "lime glue colour." Syn. Fr. for "sizing," *Apprêt*—pron. ah-pray; Ger. *Leim*—pron. lime. Der. From the Old English *syth*, glue, starch. A probable derivation is that it is simply a corruption of "seize"—that is, it enables the colour to seize or take hold of the surface on which it is put, so that it cannot be rubbed off.

Size, Full, in Architectural Drawing. A term applied to parts or details of a building which are delineated of the actual dimensions, or the real and natural size of the parts themselves when they will be made. They are then said to be "full-size drawings." Syn. Fr. *Grandeur d'exécution naturelle*—pron. grahn-deuhr daix-eh-kue-seeon nah-tuuh-rell; Ger. *Wirkliche Grösse*—i.e. "work like," real, actual, or like the work itself—pron. veerk-lich-e groehs-seh; also *Natürliche Grösse*—pron. nah-tuehr-lich-eh groes-seh. Syn. Fr. for "half-size," *Demi* (dem-ee) *grandeur*—i.e. six inches to the foot; Ger. *Halbe Grösse*—pron. hahl-beh groess-eh.

Sketch, Rough, in Architectural and Building Drawing and Design. The first or original conception of the object or structure put on paper; the first rude, unfinished outline. Der. Remotely from the Latin *schedium*, verses thrown off at random without study, or the Greek *skedios*, anything made suddenly. From these come the German *Skizze*, which is the direct derivation or origin of our word. Syn. Fr. for "rough sketch, original outline or plan," *Esquisse*—pron. ess-keee; also *Croquis*—pron. kroh-kee; also *Linéature*—pron. lee-nay-ah-tuehr, or *Première linéature*; also *Ebauche*—pron. eh-boash; Ger. *Skizze*—pron. skit-seh, or *erste Skizze*—i.e. "first sketch"—pron. airr-steh skit-seh; also *Schema*—pron. skay-mah; also *Riss*—pron. riss, or *Abriss*—pron. ahp-riss. Syn. Fr. for "to make a sketch," *Faire une ébauche* (or

croquis, etc., see above)—pron. fairr uehnn ay-boash; Ger. *Skizziren*—pron. skit-sear-en.

Skew, in *Construction*. A synonym for or a corruption of the word askew—that is, a line or a body which lies off the straight or at an angle to another line or body, as a bridge which crosses a road, not at right angles to, but at some angle more or less acute, is said to be a "skew bridge." Anything off the general or regular line of an object is said to be "on the skew," for which a synonym is "oblique." Syn. Fr. for the general term "skew" or askew, *Oblique*—pron. oh-bleek; also *En baudrier*—pron. boh-dree-yea (a term having a curious derivation, meaning literally a shoulder-belt, which goes across the back and front obliquely to the vertical line of the body, and so gives a good idea of what a "skew" is); also *En biais*—pron. ahn bee-yea, a slope or incline; Ger. *Querüber*—literally "cross over"—that is, placed across—pron. quare ueh-berr.

Skew Back, in *Bricklaying and Masonry*. The butment for an arch which is oblique to the vertical line of pier or side of opening, which butment is said to "rake." Syn. Fr. *Redan*—pron. ray-dahn; Ger. *Widerlager*—pron. vee-derr-lah-gerr.

Skiffing, in *Quarrying or in Masonry*. Knocking off with the hammer the rough parts or projections of hard rock stone at the quarry, to give them an approach to a regular or uniform surface. From these projections being often knoblike, the term "knobbing" is a synonym for skiffing. An equivalent in French for the operation is *Briser les pommes de pierre*—knobs being called apples of stone, just as the cones of the fir are called *pommes du pin*, apples of the pine—pron. breeze-eh lay pomm deh pee-airr; also *Briser les houpes* (knobs)—pron. hoop; also *Briser les bosses*—pron. boss; Ger. *Steinknorren brechen*—pron. stine-knorr-enn brech-en. Syn. Fr. for "knobbed stone," *Pierre qui a des bosses*—pron. pee-airr kee ah day boss; also *Pierre à pommes*; Ger. *Stein mit Knorren besetzt*—i.e. "stone with knobs beset"—pron. stine mit norr-enn beh-zetst. Syn. Fr. for "stone which has been knobbed or knobbed," *Pierre raboteux*—pron. rah-boh-teuh (from *raboter* [rah-boh-tay], to plane or polish or make smooth).

Skirting Board, in *Joinery*. The board which goes round the walls of a room next to and for a certain height above the floor, and which separates the horizontal floor from the vertical wall surface, is so called. Der. From the word "skirt," which comes from Old English *scyrtan*, to shorten, indicating the lower edge or part of a garment. Skirting boards are often, in buildings of a low class, made quite plain, being simply a flat, thin board to conceal the opening of the line of junction of the wall

plaster with the flooring boards. In some buildings, such as cottages, it is altogether absent. In the better classes of houses the skirting board is decorated with mouldings more or less ornate and numerous. They are in all cases nailed or secured to blocks of wood called "grounds," built in at certain intervals along the line of wall at or about the level of floor line. Syn. Fr. *Antebois*—pron. ahn-teh-bwah; Ger. *Wand-leiste*—pron. vant-lice-teh—that is, "wall band"; also *Fussbodenleiste*—pron. fooce-boh-den—that is, "floor band."

Slab or Slab-board, in *Timber*. The outside board, or that which is first sawn from a balk or beam. It is of poor quality, often veined with blue parts which are difficult to work. Syn. Fr. for "slab-board," *Planche flacheuse*—pron. plahnsh flah-sheuz; also *Dosse*—pron. doss; for "slab timber," *Bois faux gabarit*—pron. bwah foh gah-bah-ree; Ger. *Schalbrett* (from *Schale* [shah-leh], a shell, or husk, or outside scale); also *Schwarzbrett*—that is, "black (or dirty) board."

Slab of Stone, in *Masonry*. A flat block of which the length and breadth greatly exceed the thickness. Syn. Fr. *Table de pierre*—pron. tah-bell deh pee-airr; also *Pierre plate*—pron. plahht; also *Dalle*—pron. dahlh; Ger. *Steintafel*—literally "a stone table"; also *Steinplatte*—pron. plahht-teh. Syn. Fr. for "marble slab," *Table de marbre*—pron. mahr-berr; Ger. *Marmor-tafel* or *-platte*—pron. mahr-morr-plahht-teh. Syn. Fr. for "slate slab," *Table d'ardoise*—pron. ahr-dwahze; Ger. *Schieferplatte*—pron. shee-ferr.

Slack, To, in *Building*. A common synonym for which is to "slake," as to slack or slake lime. Der. The term "slack" is from the Old English *slæc*, to make loose or easy—which gives a good idea of what the lime "slacked" is, for on applying the water, with which burnt or calcined limestone is treated in the operation of slacking, the hard lumps disintegrate or crumble away, forming a loose or pulverised condition of the lime. The word "slake" is derived from the Icelandic *slocken* (hence the Scottish term, which is identical, to "sloeken" one's thirst by the drinking of water, etc.), which means to extinguish with water. Syn. Fr. for "to slack lime," *Eteindre la chaux*—pron. eh-taihn-derr lah show; Ger. *Kalk löschen* (to quench)—pron. kalk loesh-enn; also *Leim löschen*—pron. lime.

Slack Coal, in *Materials*. Synonyms for which are culm, dross. Syn. Fr. *Ménaille*—pron. menn-ahyle; also *Poussière de charbon de terre*—pron. poos-yare deh sharr-bon deh tairr, or simply *Poussier*; Ger. *Kleine Kohlen* (from *kleine*, little or small)—pron. kline-eh koh-len.

Slanting, in *Building*. Sloping or inclined.

A rafter is slanted in relation to the tie-beam; a roof surface is slanted. *Der.* From the Swedish *slinta*, sliding or sloping. Syn. Fr. for "slant," *Obliquité*—pron. oh-blee-quee-tay; also *Biais*—pron. bee-ay; Ger. *Schräge*—pron. shray-geh. Syn. Fr. for "slanting," *de Biais*; also *en Echarpe*—pron. ahn eh-sharrp; also *Obliquement*—pron. oh-bleek-mahn; Ger. *Schräg*—pron. shrayg; also *die Quere* (*quer*, across)—pron. dee quair-eh. Syn. Fr. for "to slant," to "make slant," *Ecolleter*—pron. eh-koll-ett-eh; Ger. *Schweifen*—pron. shwife-en.

Slap-boarding, in *Joinery*. A name given sometimes to "feather-edged boarding" (which see). Generally slap-boarding implies any kind of boarding in irregular widths put on quickly to cover a space, as the sides of a shed or hut.

Slapdash, in *Plastering*. A term sometimes used as synonymous with "rough casting." Syn. Fr. *Ravalement*—pron. rah-vahl-mahn; Ger. *Rauhes Wandwerk*—pron. row- (like now) ess vand-vairrk.

Slate, in *Materials*. An argillaceous mineral, which is found in a laminated state—that is, capable of being split up into thin plates, to which the name of slates is given, and which is chiefly used in this country as the covering for roofs. The colour varies from a deep to a lightish blue or grey, the blue having often a shade of purple. Slates are known to the trade by various names, as "Countess" and "Duchess," which indicate certain dimensions. Syn. Fr. for "slate," *Ardoise*—pron. ahr-dwahze; Ger. *Schieferstein*, or simply *Schiefer*—pron. shee-ferr. Syn. Fr. for "slate roof or covering," *Couverture en ardoise*—pron. kooh-vairr-tuehr ahn ahr-dwahze; Ger. *Schieferdach*—pron. shee-ferr-dach. Syn. Fr. for "slated," *Ardoisé*—pron. ahr-dwahze-eh; Ger. *Beschiefert*—pron. beh-shee-ferrt. Syn. Fr. for "slate quarry," *Carrière d'ardoise*—pron. karr-ee-airr dahr-dwahze; also *Ardoisière*—pron. ahr-dwahze-ee-airr. Ger. *Schieferbruch*. Syn. Fr. for "slater's hammer," *Hâche d'ouvrage en ardoise*—pron. hahsh doov-rahj ahn ahrdwahze; also, referring to its two sharp points, *Lame à deux tranchants*—pron. lahm ah deuh trahn-shahn; Ger. *Schieferhammer*. Syn. Fr. for "slaty," *Ardoiseux*—pron. ahrdwahze-euh; Ger. *Schieferig*—pron. shee-ferr-ig.

Slater. The workman who works in slates and puts them up on roofs, etc. Syn. Fr. *Couvreur en ardoise*, or simply *Couvreur*—pron. kooh-vreuhr; Ger. *Schieferdecker*—pron. shee-ferr-deck-err.

Slaughter-house, in *Building*. (See *Abattoir*.) Syn. Fr. also *Boucherie*—pron. boosh-e-ree; Ger. *Schlachthaus*—pron. slaught-house.

Sleeper, in *Carpentry*. The piece of timber of varying dimensions which rests

upon and runs along the length of a "sleeper wall," carried up to support the ends of the joists of the ground-floor of a house. The term is also applied to the timber laid at top of wall, forming a species of wall-plate, against which the lower ends of the common rafters of the roof butt. Sleepers are used in various positions and for several purposes. *Der.* Our word sleep is from the Old English *slæpen*, to take rest, and sleeper is the part which rests upon one body and supports another. Syn. Fr. *Chapeau*—pron. shah-poh; also *Longrin*—pron. long-rah-n; also *d'un Grillage*; also *Poitrail*—pron. pwah-trahl; Ger. *Langschwelle*—pron. langshvell-eh; also *Helm*. Syn. Fr. for "sleeper of the basement or ground-floor," *Dormant*—pron. dohr-mahn; also *Sole*—both of which terms may be used to indicate "sleeper" generally, especially the former of the two, as it is almost a literal rendering of our own term, meaning "sleeping," ours being the substantive (sleeper); Ger. *Unterbalken*—i.e. under beam; also *Träger* (from *tragen*, to bear, which a sleeper does, as it always supports another body)—pron. trah-gen.

Slit, in *Construction*. To cut or divide or wrench asunder a piece of timber, as a lath. It is often used as synonymous with "split." The term is sometimes used as a substantive, indicating a long, narrow, rectangularly-shaped aperture in an object, as the loop-holes in a tower; these are often rounded at the ends. *Der.* From the Old English *slitan*, to tear or divide asunder longitudinally. Syn. Fr. *Coupure*—pron. koop-uehr; also *Entaille*—pron. ang-tahel; also *Taillade*—pron. tahel-yahd; also *Rainure*—pron. ray-nuehr; Ger. *Schnitt*—pron. shnitt; also *Scheere*—pron. share-eh (from *scheren*, to shear, to cut, our word "shear" coming from this); also *Einschnitt*—pron. ine-shnitt. Syn. Fr. for "slitting," *Fendillage*—pron. fahn-dil-yahj; also *Fendage*—pron. fahn-dahj; Ger. *Ritzen*—pron. ritt-sen; also *Spalten*—pron. spall-ten.

Slit Deal, in *Joinery*. Inch-thick plank cut into two leaves longitudinally. Syn. Fr. *Planches d'un pouce* (an inch) *de gros* (or *épais*-eh-pay) *coupée en deux feuilles*—pron. plahnsh duhn pooce deh gro koo-pay ahn deuh feuh-ill; Ger. *Diele in zwei Blätter geschnitten*—pron. deal-eh in tzvy blet-terr gesh-nitt-en.

Slope, in *Building*. A term used to indicate that a part of a structure is on the incline—as a roof is said to slope, or be inclined at certain degrees of obliquity to the vertical walls. A synonym is "slant" (which see). Another sometimes used is "shelving," as a shelving bank of a river. Yet another synonym is "batter," but this term is more correctly applied to a tall vertical object, such as a chimney-shaft, which stands at right angles to the ground

line, and which is wider at the base than at the top. The angle which the difference between the dimensions of top and bottom give is said to be its "batter," or amount of batter. The term batter also applies to a retaining wall which slopes inwards from the base, and which cannot, therefore, be said to be vertical or at right angles to the ground level. *Der.* Our word "slope" is from the Old English *slopen*, a sliding or slipping away, as a body will from the spot on which it rests on an incline when it is free to move or is pushed down. The term slope is also applied to the outer faces of embankments of reservoirs, water-collecting ponds, the sides of raised ground or banks in gardens and ornamental grounds. Syn. Fr. for slope generally, *Ados*—pron. ah-doh; also *Pente*—pron. pahnt; also *Inclinaison*—pron. ang-klee-nay-zong; also *Talus*—pron. tah-lueh; also *Pendant d'un plan*—pron. pahn-shahn duhn plahn; Ger. *Böschung*—pron. boe-shoong; also *Hang* or *Abhang* or *Gefälle*—pron. geh-fell-leh, and *Gehänge*—pron. geh-heng-eh. Syn. Fr. for "slope of a roof," *Croupe à comble*—pron. kroop ah kohm - bell; also *Chute*; Ger. *Walmdach*—pron. vallm-dach; also *Abhang*. Syn. Fr. for the "slope or inclination of a bank or embankment," *Pente*; also *Talus* or *Inclinaison*; also *Pendage*—pron. pahn-dahj; Ger. *Neigung*—pron. ny-goong; also *Gefälle*; also *Bergabhang* (*Berg*, a mountain or hill)—pron. berg - abb - hang. Syn. Fr. for "to give a slope to a body," *Damer*—pron. dah - may; Ger. *Abschüssig*—pron. abb-shues-sig. Syn. Fr. for "slope"—in the sense of "batter," as explained above—of a wall, *Pente d'un mur*—pron. pahnt duhn muer; Ger. *Böschung einer Mauer*—pron. boeh-shoong eye-ner mow-err. Syn. Fr. for "sloping," *Escarpé*—pron. eh-scar-pay; also *Pendant* or *Rampant*—pron. rahm-pahn, or *Incliné*—pron. aihn - klee - nay; also *en Pente*, or *en Talus*; Ger. *Abhängig*—pron. abb-heng-ich. Syn. Fr. for "battering," *Gauchissement*—pron. go-sheess-mahn; Ger. *Auslothen*—pron. owss-lo-tenn. Syn. Fr. for "sloped" or "sloping wall," *Mur en talus*—pron. muer ahn tah-lueh, or *Mur taluté*—pron. muer tah-lueh-tay; also *Mur escarpé*; Ger. *Böschmauer*—pron. boesh-mow-err. Syn. Fr. for "sloping post," in carpentry, *Poinçon rampant*—pron. pwahn-son rahm-pahn; also *Poinçon en pente*; Ger. *abhängige Pfosten*—pron. abb-heng-iche pfoss-tenn. Syn. Fr. for the "sloping wall of a reservoir," *Embarcadère d'un réservoir*—pron. ahm-barr-kah-dair duhn reh-zairr-vwahr.

Sluice, in Carpentry. The wooden gate or boarding used to dam up or arrest the course of water in irrigation and other water works. *Der.* (with little change save

in the spelling) from the German *Schleuse*. Syn. Fr. *Ecluse*—pron. ay-kluetz; Ger. *Schleuse*—pron. shloy-zeh. Syn. Fr. for "sluice gate," *Porte d'écluse*—pron. portt day - kluez; also *Vanteau*—pron. vahn-toh; Ger. *Schleusenthor*—pron. shloyss - enn - tohrr. Syn. Fr. for "sluice board or hatch," the appliance used for small streams or courses of water, as in irrigation works—the term "hatch" is the most frequently used with us—*Empellement*—pron. ahm-pell-mahn; also *Bonde d'écluse*—pron. bohnd day-kluhz. Syn. Fr. for "sluice chamber," *Chambre d'écluse*—pron. shahm - berr day-kluez; Ger. *Schleusenzimmer* or Syn. Fr. for the "beam" or "cross-beam of a sluice gate," *Poutre* (or *Poutre à traverse*) *pour un vanteau*—pron. pooh-terr poor uhn vahn-toh; also *Porte d'écluse*; Ger. *Schleusenbalken*; also *Fangbalken*.

Small Coal. See under *Slack*. Syn. Fr. also *Menu*—pron. meh-nueh; Ger. *Grus*—pron. grooss.

Small Timber, in Materials. Syn. Fr. *Petit bois*—pron. peh-tee bwah; also *Bois mince*—pron. bwah mainhss; Ger. *kleines Holz*—pron. kline-ess holts.

Smith. A synonym for blacksmith. Syn. Fr. *Forgeron*—pron. forr-jerr-on; Ger. *Schmied*—pron. shmeed. *Der.* Our word is from the German word just named.

Smith's Shop, in Construction. For "fetting" or repairing and sharpening tools, as masons' chisels, and doing general smithy or ironwork. A synonym generally used by workmen is "smithy," which is also the popular or rural name. Syn. Fr. *Atelier de forgeron*—pron. ah-tell-yea deh forr-jerr-on; also *Forge*—pron. forrj; Ger. *Schmiede*—pron. shmee-deh.

Smith's Work—Blacksmith's Work. Syn. Fr. *Ouvrage de forge*—pron. oov-rahj deh forrj; also *Ferronnerie*—pron. ferr-onn-ree; Ger. *Schmiedearbeit*—pron. shmeed-eh-arr-bite. Syn. Fr. for "tongs of the smithy," *Pince de forge*—pron. painhss deh forrj; also *Tenaille de forge*—pron. ten-ahill; for "little tongs," *Pincettes*—pron. painh-cett; Ger. *Schmiedezange*—pron. shmee-deh-tsann-geh. Syn. Fr. for "smith's" or "smithy coals," *Charbon de terre de forge*—pron. shahr-bon deh tairr deh forrj; also *Charbon de terre menu*; also *Houille* (pit coal) *de maréchale* (farrier)—pron. hoo-ill deh mah-ray-shahl; Ger. *Schmiedekohle*.

Smoke House. A structure built for the curing of meat, fish, etc., by means of wood smoke. Syn. Fr. *Soneterie*—pron. son-ett-ree; also *Chambre pour la fumée du bois*—pron. fuch-may du bwah; Ger. *Rauchkammer*.

Smoke Pipe of a Stove. Syn. Fr. *Tuyau de poêle*—pron. twee-oh, poh-ahill; Ger. *Rauchrohr*—pron. rowch-roar.

Smoking-room, in Domestic Architecture. In large houses an apartment set apart for

smokers. If there be a prospect tower to the house it is often placed there, to afford the added luxury of a good prospect (*Belle-vue*), and to avoid giving what may be to others in the house the nuisance of the smell of cigars. For this and other reasons special attention should be paid to the ventilation of the smoking-room. Syn. Fr. for "smoking-room," *Chambre pour les fumeurs*—pron. shahm-berr poor lay fuehm-eurr; also *Couloissoire*—pron. koohl-iss-wahr (this word has a curious derivation—it comes from *coulisse*, a sliding door, also behind the scenes, as if smoking were to be done in secret or apart); also *Fumoir*—pron. fueh-mwahr; Ger. *Rauchzimmer* (from *rauchen*, to smoke)—pron. rowch-tzim-merr. Der. The word smoke comes from the Old English *smocca*, the vapour which rises from a substance in a state of combustion.

Smooth, in Construction. The condition of surface of stone, wood, and other building materials in which all protuberances and roughnesses are absent. A synonym sometimes used is "polished," although this involves another condition—that generally of shining—which smooth does not. Syn. Fr. for "smooth," *Lisse*—pron. leece; also *Uni*—pron. ueh-nee; also *Moelleux*—pron. moh-ell-euh (from *moelle*, marrow—whence our word mellow); Ger. *Glatt*. Syn. Fr. for "to smooth by the plane" (in joinery), *Planir*; also *Replanir*—pron. reh-plah-neerr; Ger. *Holz feinen*—pron. holts fy-nen; also *Holz glatt machen*—pron. holts glahtt machen. Syn. Fr. for "smoothing chisel," *Ciseau fin*—pron. see-zoh faihn; Ger. *Schlichtmeissel*—pron. shlicht-mice-ell. Syn. Fr. for "smoothing plane," *Rabot plat*—pron. rah-boh plah; also *Varlope à recaler*—pron. vahr-lopp ah reh-kall-eh; also *Recaloir*—pron. reh-kall-wahr; Ger. *Schlichthobel*—pron. shlicht-hoh-bell, or *Glatthobel* (from *hobeln*, to plane). Syn. Fr. for "smoothing," *Lissage*—pron. lee-suhr; Ger. *Glätten*—pron. glatt-tenn. Syn. Fr. for "smoothing and scraping," as in masonry, *Ripage d'un pierre*—pron. ree-pahj duehn pee-airr; Ger. *Abkratzen eines Steines*—pron. ahb-kratt-sen in-ess stin-ess. Syn. Fr. for "smoothing and polishing," as in joinery or cabinet-making, *Adoucissage*—pron. ah-doo-cease-ahj; also *Lissage de bois*; Ger. *Poliren*—pron. poll-er-enn. Syn. Fr. for "smoothing" or "polishing paper," a synonym for which is Glass-paper (which see), *Papier à polir*—pron. pah-pee-ay ah poh-leer; Ger. *Glatt-papier*—pron. glahtt-pah-peerr.

Socket, in Construction and Tools. The hollow part of one body, into which the end or projecting part of another body goes or is driven, is so called. In one respect it may be a synonym for mortise. It is, however, perhaps more applicable to tools

and appliances. Der. A diminutive of sock—which gives to socket a curious derivation, coming as it does from the Latin word *soccus*, a species of shoe worn frequently by actors on the stage; hence the term in the well-known phrase "sock and buskin." Or it may be from the Old English *soec*, a short stocking—our word sock. Both words give a good idea of what a socket is in construction—a hollow body which receives and holds fast another body. The nearest approach to the above is the French term *soc*, which is the part of a plough which has a hollow part to receive the end of the sole, and for which in German the term is nearly the same—namely, *Sech*. Syn. Fr. for "socket," *Douille*—pron. dooh-eel—whence, although in an inverted way, our word Dowel (see ADDENDA); also *Crapaudine*—pron. krapp-oh-deen; Ger. *Dille*—pron. deel-leh; also *Röhre*—pron. roeh-ray; also *Schuh*—pron. shoe, which the word means; also *Hülse*—pron. huehl-zeh. Syn. Fr. for "socket of a tool," *Douille d'un outil*; Ger. *Rohr*—pron. rorr. Syn. Fr. for "socket of a tube," as of a drain tube, *Tuyau à emboîtement*—pron. twee-oh ah ahm-bwaht-mahn; Ger. *Fugröhre*—pron. foog-roeh-reh. Syn. Fr. for "socket and spigot joint of pipes or tubes" (here socket is synonymous with "faucet"), *Tuyau à emboîtement et cordon*—pron. kohr-dong; Ger. *Röhre mit Verzapfung*—pron. ferr-tsap-foong.

Soffit, in Architecture and Building. The under side or curved surface of an arch or semicircle, or segmental opening or recess. The term is also applied to the under side of the top of a deeply recessed window in the interior of a room. Syn. Fr. *Soffite*—pron. sof-feet; Ger. *Unterseite eines Bogens*—literally "the under side of an arch," which gives a good idea of what the term means. Syn. Fr. for the "soffit of a cornice," *Plafond d'un corniche*—pron. plah-fohn duhn kohr-neesh; Ger. *Unterseite eines Karniess*—pron. kahr-neece.

Soft, in Materials (as "soft wood," "soft stone"). A condition opposite to that which is known as hard and firm—in wood, for example, as "frowsy" and open in fibre; in stone, crumbling and friable, with grains more or less coarse and open, and both materials more or less easily yielding to pressure, which latter is the meaning of the Old English word *saft*, from which our word is derived, and which is found almost precisely identical in the Lowland Scottish of the present day in "saft." Syn. Fr. for "soft," *Mou*—pron. mooch; also *Tendre*—pron. tahn-derr; also *Doux*—pron. dooh, or with feminine words *Douce*—pron. dooce; Ger. *Weich*—pron. vych (ch guttural, see Dissertation). Syn. Fr. for "softness of materials," *Mollesse de matériaux*—pron. moll-ess deh mah-tare-ee-oh; also *Douceur*

—pron. dooh-seurr; Ger. *Weichlich von Materialien*—pron. vych-lich fon mah-terr-ee-ahl-enn. Syn. Fr. for “soft wood,” *Bois mou*—pron. bwah moo; also *Bois tendre*, or *Bois doux*; Ger. *weiches Holz*—pron. vych-ess hollts. Syn. Fr. for “soft stone,” *Pierre molle*—pron. pee-airr moll, or *Pierre mou* (see above for “soft”); Ger. *weicher Stein*. Syn. Fr. for the “soft part of a stone” which may not be hard throughout, *Moye*—pron. moy; Ger. *Loschicht*—pron. loh-schicht.

Soil, in Building. The ground or earth in which and on which the foundations of a structure are made and rest. Syn. Fr. for soil generally, *Sol* or *Terrain*—pron. terr-aihn; also *Terroir*—pron. terr-wahr; Ger. *Grund*—pron. groond; also *Boden*—pron. boh-denn. “Made soil” is the material carted from a distance to fill up a hollow part of the site or locale of the house, or to raise the actual site above the level of the surrounding ground, to enable terraces to be made surrounding or at one or more sides of the house. Although made soils are more or less objectionable on account of their liability to give way in parts, and thus cause unequal and often dangerous settlement in the walls, some are thoroughly objectionable not only in this respect, but as giving rise to the gravest sanitary defects in consequence of the rubbish and the filthy decaying substances which are sometimes used to form them. Syn. Fr. *Sol* or *Terrain artificiel*—pron. ahr-tee-feece-ee-ell; also *Sol* or *Terrain factice*—pron. fack-teece; Ger. *gemachter Grund*—pron. geh-macht-err groond; also *künstlicher Grund*—pron. kuenst-lich-err groond. Syn. Fr. for “soft soil,” *Sol mou*; Ger. *weicher Grund*. Syn. Fr. for “unsettled or shifting soil,” *Sol (ou terrain) changeant*—pron. shahn-jahn; also *Terrain* or *Sol mobile*—pron. moh-beel; Ger. *beweglicher Grund*—pron. beh-vehg-lich-err groohnd. Syn. Fr. for the first operation in making foundations, “to take off the surface of soil,” *Edosser le sol ou terrain*—pron. eh-doss-eh leh sohl ooh ter-raing; Ger. *Grund abfahren*—pron. groohnd abb-fahr-enn.

Soil Pipe, in Plumbing. The pipe which leads the liquid refuse of a household from the sink, slopstone, or water-closet, etc., to the drain. Syn. Fr. *Tuyau d'égout*—pron. twee-oh day-gooh; also *Tuyau de chute*—pron. day shuet; Ger. *Abtritts-röhre*—pron. abb-tritts-roeh-reh.

Solder, in Plumbing. A soft metal used to join other pieces of metal, as sheets of tin, together, so as to be air-tight and water-tight, as in the case of vessels made of this material. The edges of the material being previously well cleaned, generally by scraping, so as to be free from grease, are placed in contact, and powdered; flux, as

resin—“fiddler’s rosin” (Scotticé)—is spread over the edges. A portion of the solder metal, as tin, is then taken up by the heated solder bolt, and this is run with the flux along the joint or a part of it. When this cools, which it does at once, the junction between the two edges is complete. Syn. Fr. for “solder,” *Soudure*—pron. sooh-duehr; Ger. *Loth*, or *Löthmittel*—pron. lote. Syn. Fr. for “to solder,” *Souder*—pron. sooh-day; Ger. *Löthen*—pron. lote-enn. Syn. Fr. for “soldering,” *Soudage*—pron. sooh-dahj; Ger. *Löthung*—pron. lote-oong. The “solder bolt,” for soldering tin, lead, etc., is a tool made of a piece of a square copper bar, fastened to an iron handle, and this provided with a wooden handle at the end. The copper piece is pointed at the end, to facilitate the application of the melted flux and solder. The bolt is heated in the fire to a proper temperature, which is generally ascertained by the workman holding it near to his cheek, and who cleans it from soot or ashes by wiping it on his leather or thick woollen apron. Syn. Fr. for “solder bolt,” *Sudoir*—pron. sueh-dwahr; also *Fer à souder*—pron. fairr ah sooh-derr; also *Outil pour le soudage*—pron. ooh-teel poor leh sooh-dahj; Ger. *Lothkolben*—pron. lote-koll-ben.

Sole, in Carpentry. The synonym for which is “sill,” though this is more frequently, if not altogether exclusively, used in masonry and joinery. The sole is the bearing part of a beam or girder, or that which rests on the “Sole plate” (which see). Der. From—in fact identically the same in sound, spelling, and meaning as—the Old English word *sole*, the under part of an object, as of the foot. Syn. Fr. for “sole,” as the bearing part of a beam, *Sous-surface d'un poutre*—pron. sooh-suehr-fass duuhn pooh-terr; also *Point d'appui*—pron. pwoin dah-pweeh; also *Surface inférieure d'un poutre*; Ger. *Unterseite eines Balkens*—pron. oohn-terr-zy-teh eye-ness bahl-kens; also *Balkenstützpunkt*—pron. bahl-kenn-stuettspoonkt. Syn. Fr. for “sole,” *Semelle*—pron. seh-mell; Ger. *Sohle*—pron. zo-leh; also *Sitz*—pron. zits.

Sole Plate, in Carpentry. A beam or batten, rectangular in section and of small dimensions, which is built into or rests on the wall or upon an Offset (which see) or projecting part of the same, and on which as a bearing part (see above) the ends of beams or posts of a partition rest, and by which, while they are supported, the pressure is distributed over the wall bearing. Syn. Fr. *Sablière*—pron. sah-blee-airr; also *Semelle d'assemblage*—pron. seh-mell dah-sahm-blahj; also for “sole plate of a partition,” *Sablière en semelle du cloison*—pron. duuh klwah-zon; Ger. *Balkensohle*; also *Balkenschwelle*—pron. bahl-kenn-shvel-leh.

Solid, in Construction. In the sense of the firm, sound, or sure, as a solid foundation, a solid bearing for a stone or beam. *Der.* Directly from the Latin *solidus*, solid. Syn. Fr. for "solid," *Solide*—pron. soh-leed; also *Massif*—pron. mah-seef; or *Plein*—pron. plaing—which is a synonym not often used for the definite terms first given, signifying properly full, *Fort*, strong—pron. forr, being used in the same way; Ger. *Solid*—pron. soh-leed; also *Massiv*—pron. mahs-seaf. In the same way as *fort* is used as a French synonym the word in German *stark*, strong—pron. starrk, is employed. Syn. Fr. for "a solid wall," *un Mur solide ou massif*—pron. uhn muehr soh-leed ooh mahs-seaf; Ger. *eine massive Mauer*—pron. i-neh mah-seaf mow-err. Syn. Fr. for "solid walls and spaces" combined, as window and door openings in a wall, *les Murs et les Vides*—pron. lay muehr eh lay veed; Ger. *die massiven Mauern und Räume*—pron. dee mah-seaf mow-ern oond roy-meh.

Sommering, in Masonry. The radiated joints of an arch are so called.

Sound, in Materials. A term often used to indicate the good qualities, the strength of materials, as wood, stone, brick—as, for example, "good sound brick" is a phrase frequently used in specifications of work to be done. *Der.* From the Old English *sund*, or from the German *gesund*—both meaning free from imperfection or fault. Syn. Fr. *Sain*—pron. saihn; also *En bon état*—pron. ahn bonn eh-tah, or *Bien conditionné*—pron. bee-an con-dee-secon-nay; also *Droit*—that is, right—pron. drwah; also *Fort*; Ger. *Gesund*—pron. gay-zoond; also *Stark* or *Recht*, right—pron. recht (ch guttural, see Dissertation); also *Fest*, fast or sure—pron. festt. Syn. Fr. for "soundness," *Santé*—pron. sahn-tay, or *Bon état*—pron. bonn eh-tah; also *Solidité*; Ger. *Gesundheit*—pron. gay-zoohnd-hite; also *Richtigkeit*—pron. rich-tich-kite; also *Festigkeit*—pron. festt-ich-kite. Syn. Fr. for "sound material," *Sain matériel*—pron. saihn mah-tare-ee-ell; Ger. *gesunde Materialien*—pron. gay-zoohndeh mah-tare-ee-ahl-ee-en.

Sound Boarding, in Carpentry. Narrow and short boards placed transversely between the flooring joists of a room above another. They are supported by narrow and thin fillets nailed longitudinally to the inside of the joists, at a depth sufficient to support a layer of pugging—or a mixture of mortar and hair—some space below the flooring boards when these are put down. The arrangement is to prevent the passage of sound from the upper to the lower room. Syn. Fr. *Flaches*—pron. flahsh; Ger. *Unterlage des Fussbodens*—pron. oohn-terr-lah-geh des foos-boh-dene.

Sounding Board, in Church Fittings. A flat, under-surfaced board or canopy placed

over a pulpit to reflect the sound of the preacher's voice into the body of the church. Syn. Fr. *Résonance*—pron. ray-son-nahnce; Ger. *Resonanzdecke*—pron. res-son-nants-dek-eh.

Sound Timber, To. A phrase used in *Joinery, Cabinet Making*, etc., to indicate the striking of a piece of wood to test or ascertain its soundness (which see) with a hard body, as a hammer or a piece of metal or hard wood; or in small pieces with the knuckles. *Der.* From the Old English *soun*, to make an impression in the ear by making a noise, or from the Latin *sonus*, a sound; *sonare*, to sound. Our word sonorous comes from this. Syn. Fr. for "to sound timber," *Sonder le bois avec un marteau*—pron. sohn-day luh bwah ah-veck uhn mah-r-toh; also *Frapper* (pron. frapp-eh), etc., to strike the timber to cause it to emit the sound which to a practised ear denotes soundness or the reverse; Ger. *Holz mit einem Hammer sondiren*—pron. holts meet ine-em hah-merr zonn-deer-en. Syn. Fr. for "to sound soil or the ground," to strike the soil with a rammer with a view to test its solidity or hollowness or unsoundness by the peculiar sound it emits, with a view to foundation work, *Sol sonder*—pron. soll song-day; Ger. *den Grund sondiren* or *die Erde sondiren*—pron. groond- (or err-de) zonn-deer-en.

Sorting, in Slates' Work. Determining the length of slates by the scantle, or gauge, so called.

Space—Spacing, in Construction. Terms used to indicate the free part or void between any two or more bodies or objects, or what is enclosed by walls or contained within a vessel; or to give the idea of exclusion generally without reference to any specially placed objects—as, for example, large, small, free, or confined spaces. *Der.* From the French *espace*, and this from the Latin *spatium*, space, if not from *spatiari*, to walk about, as space must be had to admit of this being done. From the latter word the German *spatziren*, to walk, is derived. Syn. Fr. for "space" generally, *Espace*—pron. ess-pahss; Ger. *der Raum*. Syn. Fr. for "space (or interval) between the joists or beams of a floor," *Entrevous*—pron. ang-terr-vooh, or *Espace des poutres d'un plancher*—pron. ess-pahss day pooh-terr duhn plahn-shay; also *Espace des poutres*; Ger. *Balkenraum*; also *Raum zwischen den Fussboden Balken*—pron. rowm tsvish-en dane fooss-boh-den bahl-ken. Syn. Fr. for "space between the rafters (of a roof)," *Solément*—pron. sohl-mahn; also *Espace des chevrons* (common rafters) or *Maitres chevrons* (principal rafters)—pron. ess-pahss day shev-ron, may-terr-shev-ron; Ger. *Raum zwischen den Deckenbalken*—pron. rowm tsvish-enn dane dekk-en bahl-kenn. Syn. Fr. for "hearth-stone space" (in front of a fireplace),

Trémie—pron. tray-mee; Ger. *Heerd*—(hearth) *raum*—pron. hairrd-rowm. Syn. Fr. for an "open space," as before a building, *Espace ouvert*—pron. ess-pahss ooh-vairr; Ger. *freier Raum*—i.e. free space—pron. fry-err rowm; also *offener Raum*—i.e. open space—pron. of-fenn-err rowm; also *Lichtweite*—literally "light width," a width or space to give free light—pron. licht-vy-teh. Syn. Fr. for "spacing out"—that is, marking out the distances between bodies or parts of a structure, as those laid at definite or regular intervals or positions, *Espace*—pron. ess-pahss-eh; Ger. *Räumen*—pron. roy-menn. Syn. Fr. for "spaciousness," *Ampleur*—pron. ahm-pleurr; Ger. *Geräumigkeit*—pron. gay-roy-mich-kite.

Spade, in Tools. A hand implement or tool by which materials such as lime, sand, mortar, etc., are lifted, moved, and mixed, or soil is dug, as in trenches for foundations. A synonym sometimes used is shovel (from the German *Schaufel*), but a shovel is distinguished from a spade in having its edges, and its end opposite the mouth or where the handle is fixed, more or less rounded or turned up, so as to enclose a space from which materials lying in it do not so easily slip off the blade; whereas a spade has its blade quite free and sharp at the edges. Thus a shovel can lift materials lying loosely, but cannot penetrate the soil, for example, as a spade could do. A shovel can lift and carry, but cannot easily dig; a spade can dig, lift, and carry. The spade consists of two parts: the blade, the cutting or lifting part, fitted with a socket at the upper or outer end; and the handle, made of a cylindrical piece of wood quite smooth on the surface, an inch and a half in diameter, and three feet or so long. The handle is fitted with a swelled-out part curved at the sides, and provided with an aperture into which the hand of the workman using the spade goes to aid in turning over the blade and in working it. In some cases the handle is a mere crosspiece some three or four inches long. The blades of spades are of various shapes, chiefly rectangular, slightly narrower at cutting edge than at handle, such as in the spade for digging soil; some are perfectly flat, or nearly so, some curved or concave on the greater part, but all are more or less curved or concave near the handle end. Syn. Fr. for "spade," *Bêche*—pron. baysh; also *Pelle carrée*, a square shovel—pron. pell kahr-ray; Ger. *Spaten*—pron. spah-ten; also *Grabscheit*. Syn. Fr. for "a little spade," *Bechette*—pron. bai-shett; also *Béchet*—pron. baish-oh; Ger. *kleiner Spaten*—pron. kline-er spah-ten.

Span, in Architecture and Construction. The greatest horizontal width, as between the piers of an arch or between the opposite walls of a building. Der. Our word is from

the Old English *spanner*, to span, which was to measure a distance by extending fully the whole fingers of the hand, the distance between the outside of thumb and of little finger being termed a span. Syn. Fr. for "span," *Espace du pouce* (thumb) *au petit doigt* (little finger) *écarté* (*écart*, stepping or setting aside, *écarter*, to widen)—pron. ess-pahss duuh pooce oh pett-ee dwaht eh-karr-tay; also *Braque*—pron. brahg; Ger. *die Spanne*—pron. dee span-neh. Syn. Fr. for "span of an arch," *Portée*—pron. pohr-tay, or *Vide*—pron. veed; also *Ouverture* (opening)—pron. ooh-vairr-tuuh, or *Baie* (our word bay, a compartment or division of a definite width or span, comes from this)—pron. bay; also *Corde d'un arc*—pron. kohrrd duuhn arrk; Ger. *Oeffnung*—pron. oh-eff-noong, or *Spannung*—pron. spahn-noong; also, in the case of an arch, *Bogen-spanne*, or *Bogenlichtöffnung*—pron. oeff-noong. Syn. Fr. for "a beam which spans an opening," *Porter*—pron. pohr-tay; Ger. *Spannenbalken*; also *Tragebalken*—pron. trahcht-bahl-kenn. Syn. Fr. for "span roof," the simplest form of roof with two inclined sides, *Toit en batière*—pron. twaht ahn bah-tee-airr; also *Toit à deux croupes*—pron. twaht ah duuh kroop, or *Toit à deux égouts* (eaves)—pron. eh-goo; Ger. *Satteldach*—literally "a saddle roof"—pron. zat-tell-dach; also *zweihängiges Dach*—i.e. "a two-hanging roof" with two overhanging eaves, a penthouse or shed roof having only one eave—pron. tsvy-heng-ich-es dach. Syn. Fr. for "span of a vault," *Jour d'un voûte*—pron. joohr duuhn voot; Ger. *Gewölbespanne*—pron. geh-voell-beh-span-neh. Syn. Fr. for "wide span," *Large d'un enpan*—pron. lahrjh duuhn ahn-pann; Ger. *grosse Spanne*—pron. gross-eh span-neh.

Spandrels, in Architecture. Where the space above an arched opening is filled in with solid brick or stonework surmounted with mouldings and at sides marked off by vertical members corresponding in line to the pieces, triangular spaces are formed of which the inner and lower sides have the curve of the arch, and to these spaces the name of spandrels is given. These triangular or three-sided spaces, one of which is always a curve, are generally filled in with ornaments, such as the trefoil, quatrefoil, or other device, as a scutcheon or shield. Syn. Fr. *Naissance*—pron. nays-sahnce; Ger. *Bogenhintermauer*—pron. boh-genn-hinn-terr-mow-err.

Spanner, in Tools. The appliance with which nuts are screwed up or loosened from the screwbolt. In its simplest form it is a cylindrical piece of iron, of varying length according to the size. This forms the handle, the end of which is widened out and made flat on its upper and lower surface—a part of this at the end of same depth measured

from the edge, and of width a little larger than that of the nut. This is passed into the opening of the spanner, by which the latter gets a good hold or grip of the nut, and by turning the handle one way or another the nut is screwed or unscrewed. Spanners are sometimes called "keys," but this term applies, we believe, almost exclusively to Scotland. It, however, is the form which the term assumes both in French and German technical terms (see below). Spanners require to be of different sizes to suit different widths of nuts, but there are forms called "shifting spanners." The forms of this kind of spanner are numerous, several of them being patented; but the chief feature in all is that one part or claw is movable by means of a screw, while the other is fixed, so that the distance between the two can be adjusted to meet different widths of bolts within a pretty wide range. Syn. Fr. for "spanner," *Clef à bouton*—i.e. "a nut-key" (see above)—pron. klav ah or klaiff ah booh-tong; Ger. *Bolzenschlüssel*—pron. bohl-tzenn-shloo-ess-ell.

Spars, in Carpentry. The name often given to the timbers, especially the small timbers, of a roof. *Der.* Our word spar is from the German *Sparren*, a long piece of timber. Syn. Fr. for "spar of a roof," *Chevron de comble*—pron. chev-ron deh cohmbell; Ger. *Dachsparren*. Syn. Fr. for the "spars of a span roof," *Traverses*—pron. trah-vairree; Ger. *Querbalken*—pron. quairrbahl-ken.

Specification, in Architecture and Building. The document which accompanies the set of drawings prepared for the artificers who are to build the structure. To guide them in all points which have to be observed, to name or specify—hence the term—all the leading features of the structure, the nature of the materials to be employed, how they are to be used, their dimensions, etc., and to furnish practical information on a variety of details requisite to be known by the artificers and to be insisted upon by the architect in the interests of his client, the proprietor of the property, is the object of the important document known as the specification. Great care is required in drawing up its various clauses, so that no point shall be left unprovided for or neglected; and once finally decided upon, it must not be set aside without incurring certain penalties or responsibilities either on one side or the other. It constitutes, in fact, the legal bond or contract to which reference must be made in all disputed points, and to the terms of which both parties mutually agree and testify by signatures duly witnessed. The specification is in all cases taken along with the working drawings, both forming, in point of fact, one single document; but where in the department of dimensions any

discrepancy should arise, those named in the specification are to be taken in preference to those marked or given in the drawing. The specification is generally accompanied or preceded by what are called "conditions," being a statement of the terms to which the respective parties agree and bind themselves to fulfil—for example, the rates and periods at which payment to contractors is made. The estimate or contract to execute the work for a certain sum may be said to be the final and binding document passed between the parties concerned, and completes the series. So long as all the terms of agreement are maintained in their original integrity, no room for the making of "extra" charges is made; but so soon as the contract or agreement is broken, though even in the slightest way—by the owner, for example, wishing to have some changes made in certain parts which will involve higher prices—then the specification is, so to say, set aside so far as "extras" are concerned, and a loophole too often availed of is left for unscrupulous contractors making the cost much greater than originally estimated. Hence the necessity to have the contract as a whole rigidly maintained, for it is those "extras" which are so remunerative to contractors. *Der.* The word specify is from the Latin *specificus*, something particular, of a special order or kind, definite, precise, fixed, and this from *species*, and *facere*, to make. Syn. Fr. for "to specify," *Spécifier*—pron. spay-sea-fee-ay; Ger. *Namentlich auführen*—pron. nah-mennt-lich owf-füh-ren, or *Spezifizieren*—pron. spay-see-fee-tsee-ren. Syn. Fr. for "specification," *Spécification*—pron. spay-see-fee-kah-see-on, or *Estimation*—pron. ayss-tee-mah-see-on; also *Devis*—pron. day-vee, or *Détail estimatif*—pron. day-taeel ayss-tee-mah-teef; also *Aperçu des frais*—pron. ah-perr-suuh day fray; Ger. *Abschätzung*—pron. abb-shet-soong; also *Kostenanschlag*—pron. koss-ten-ann-shlahg.

Spigot, in Construction. The small or tapering end of a tube or pipe, as a drain-tube, which goes into the wider end—called the faucet—of another tube, and is there secured by clay luting or by cement or lead. The joint thus completed is called the "spigot and faucet." Syn. Fr. for "spigot," *Broche*—pron. brosh; Ger. *Zapfen*—pron. tsapp-fenn. Syn. Fr. for "spigot and faucet joint," *Joint à douille*—pron. jwahn ah dooeel; Ger. *Nuthe und Feder Verbindung*—nuu-teh oont fay-derr ferr-bin-dooing.

Spherical Bracketing, in Joinery and Plastering. The brackets to support lath and plaster, which are so formed that their outer surfaces are spherical. *Der.* The word spherical—being that which is connected with or belonging to a sphere—comes from

the Latin *sphæra*, and this from the Greek *sphaira*, a body every point in the surface and every part of which is equidistant from a point in the centre. The synonym is "globe"—"globular" being the synonym for spherical. Syn. Fr. for "sphere," *Sphère*—pron. sphair; Ger. *Sphäre*—pron. sphair-eh; also *Kugel*—pron. kooch-gell. Syn. Fr. for the "spherical end of a bracket," *Boule de console*—pron. boohl deh kohn-sohl; also *Boule de tasseau*—pron. tass-oh; Ger. *Sphärisches Endstück der Console*—pron. sphair-eesh-ess ent-stuek derr kon-sole-eh; also *Knagge*—pron. knag-geh; also *Träger*—pron. tray-gerr.

Spike, in Construction. A large iron nail, or an iron bolt pointed and with a nail-like head. The name is also often used as a synonym for trenail or wooden pin. Der. From the German *Speiche*, a nail, or from the Icelandic *spikari*, a spike, or from the Latin *spica*, an ear of corn, the shape of which suggests that of an iron or wooden spike. Syn. Fr. for "spike," *Goujon en fer* or *en bois*—pron. gooh-jong ahng lair, ahng bwah; Ger. *Dorn*. Syn. Fr. for "to spike"—that is, to point a bar or rod of iron, or a piece of wood, *Epointer*—pron. eh-pwahng-tay; also *Emouser*—pron. eh-moose-eh; Ger. *Abspitzen*—pron. ahb-spits-en. Syn. Fr. for "the iron spikes of a gate or wall," etc., to prevent people climbing over them, *Chardon*—pron. sharr-don; also *Epi*—pron. eh-pee; Ger. *Mauerdorn*—pron. mow-err-dorn; also *Eisenspitzen* (pointed iron) *von Gatter* or *Pforte*—pron. izen-speetz-enn fon gat-ter, forr-teh.

Spiral, in Architecture. The twisted scroll the synonym for which is the "volute"; also a "scroll," though a scroll is not always a spiral or part of a spiral. A corkscrew is a spiral, for which another term is helical (from *helix*). Der. The word spiral is from the Latin *spira*, a coil. A spiral line is formed by twisting a cord or wire round a cylinder, the wire rising as the twist round is made. Syn. Fr. for "spiral," *Spiral*—pron. spee-rahl; also *en Spirale*—pron. ahn spee-rahl; also *Boudin*—pron. booh-dan; Ger. *Spiralförmig*—pron. spee-rahl-föerr-migh; also *Schnecke*—pron. shnekk-eh. Syn. Fr. for "a spiral scroll," *Poste*—pron. post; Ger. *Schneckenzug*—pron. shekk-enn-tsoog. Syn. Fr. for "spiral line," *Ligne spirale*—pron. leeng spee-rahl; also *Helice*—pron. hay-leece; Ger. *Spiralleine*—pron. spee-rahl-line-eh. Syn. Fr. for "spiral spring," used for self-closing doors, etc., *Ressort spiral*—pron. ress-orr spee-rahl; Ger. *Spiralfeder*—pron. fay-derr.

Spire, in Architecture. The pointed termination to a church steeple or tower. Der. Our word is from the Icelandic *spira*, a pinnacle, not from the Latin *spira*, a coil. Syn. Fr. for "church spire," *Aiguille d'église*

—pron. eh-gweel daig-gleeze; also *Pointe d'église* or *flèche* (arrow)—pron. flaysh; Ger. *Kirchenspitze*—pron. keer-chenn-speet-seh; also *Kirchthurmspitze* (*Thurm*, a tower)—pron. keerch-toorm-speet-seh; also *Thurmspitze* (tower point), or, inverted, pointed tower, *Spitzthurm*.

Spirit Level, in Building Tools and Appliances. The small instrument or appliance by which the level of parts of structures, etc., and a true level in making surveys, or in "levelling," is obtained. It consists of a short glass tube hermetically sealed at the ends, containing rectified spirits of wine or distilled water, but not so full but what a bubble of air remains in the tube. This bubble is so mobile that on the least change of level or position of the tube the bubble changes its position. If the tube slants the bubble rises to the higher end, and only when the tube is held or placed precisely level—that is, parallel to the line of the horizon—does the bubble remain exactly in the centre of the tube. For convenience of use, the glass tube is fixed in a recess made in the centre of a piece of mahogany, rectangular in section, some two inches broad or an inch and half, and an inch or so deep, and with sides and edges parallel to each other. The wood frame is covered with a brass plate, to secure the tube from shifting and breakage—an aperture being made in the plate to show the tube and its bubble below the plate. Syn. Fr. *Niveau d'air*—pron. neeve-oh dairr; also *Abulle d'air*—pron. ah-bull dairr; Ger. *Röhrenniveau* (tube level)—pron. roehr-enn-nee-oh; also *Wasserrage*—literally "a water balance," that is, when water is balanced, so to call it, or has no tendency to run either way, it is level—pron. vass-err-vah-geh.

Splay, in Construction. That part of a body which presents a surface oblique to the other surfaces—as, for example, a "splayed" brick, which is simply that form where one or both or all of the courses is cut vertically off, thus exposing a face—technically the "splay"—oblique to the other surfaces or faces. A synonym for splay is "bevil." Syn. Fr. *Evasement*—pron. eh-vahze-mahn; Ger. *eine Winkelfläche schiefen*—literally "an angle-area sloped"—pron. vin-kell-flay-cheh shee-fenn. Syn. Fr. for "to splay," or give or make the slope, *Evaser*—pron. eh-vahze-eh; also *Ebouter*—pron. eh-booh-teh; Ger. *Winkelschief machen* or *Behauen*—pron. vin-kell-sheef mach-enn. Syn. Fr. for "splaying," *Ebrase-ment*—pron. eh-brahze-mahn; also *Evasement* or *Ebatement*; Ger. *Winkelschiefung* or *Auswinkelschiefung*.

Splice, in Carpentry and Joinery. The term is borrowed from the sailors' or rope-makers' art of joining the ends of two ropes

so as to make them into one, by first undoing or unravelling the strands for some length at the ends, and then retwisting the respective strands together. When well done a rope thus treated is said to be stronger at the spliced part than at any other. *Der.* The word is from the German *Splessung*, a splice, or perhaps from *spleissen*, to split or tear asunder—the separation of the two parts being involved in the work of splicing. In carpentry and joinery a synonym for a splice joint is the “half-lap” (which see); also “Scarf.” Syn. Fr. *Epissure*—pron. eh-pee-suere; also *Fausse-coupe*—pron. fohss-koop. Syn. Fr. for “to splice,” *Embraver*—pron. awhm-braw-vay; also *Joindre à angle*—pron. jwahn-derr ah ahn-glai; Ger. *Einsplissung*—pron. ine-spleese-oong; also *Einfalzen*—pron. ine-fahl-tzeenn. Syn. Fr. for “spliced,” *Embravé*—pron. ahm-brah-vay.

Splinter, in Materials. As in timber, a part taken or split off from a larger piece of wood. *Der.* Our word is from the German *splittern*, to splinter, or *Splitter*, a splinter; or perhaps from *Splint*, a peg—parts being split off to make pegs of. Syn. Fr. *Coupeau*—pron. koop-oh; also *Eclat*—pron. eh-klah, or *Copeau*—pron. koh-poh; Ger. *Splint*—pron. spleint; also *Keil*—pron. kyle. Syn. Fr. for “to splinter,” *Ecouper*—pron. eh-koop-eh; also *Eclater*—pron. eh-klatt-eh; Ger. *Zersplittern*—pron. ferr-split-tern. Syn. Fr. for “splintery or splintered wood”—that is, wood full of splinters (a term or synonym for which is met with in “shaky wood,” or wood having fissures)—*Bois esquilleux*—pron. bwah ess-keel-yuh; Ger. *Splitterig*—pron. splin-terr-ig.

Split, in Materials. A term used to indicate that a body, as a block of stone or a piece of wood, has parted asunder. The one part may not be wholly, but only partially split. Generally when a split commences, and is at the first and for some time thereafter only partial, it extends or is apt to extend. In some cases a “chink” or “crack” or “fissure” is synonymous with split. To split is to divide a body into one or more parts; “to cleave” is synonymous with this. *Der.* Our word is from the German *spleissen*, to split, to cleave, or from *splittern*, to splinter, to shiver, to split. Syn. Fr. for “to split,” *Fêler*—pron. fay-lay; Ger. *Spleissen* or *Splittern*—pron. splice-enn or split-tern. Syn. Fr. for “split, chink, or fissure in wood,” *Bois fendu*—pron. bwah fahn-dueh; Ger. *Reissen*—pron. rice-enn; also *Aufreissen*—pron. owff-rice-enn. Syn. Fr. for “split in two,” *Fendre de part en part*—pron. fahn-derr deh pahh ahn pahh; Ger. *Entzwei spleissen*—pron. ent-sviey splyss-senn. Syn. Fr. for “split up,” *S’écailer*—pron. say-kail-yeh; Ger. *Sich aufschiefen*—pron. zich owff-

shee-fern. Syn. Fr. for a “split or splinter in joinery work,” *Bresure*—pron. breh-suurr; Ger. *Bruch*—pron. brook. Syn. Fr. for a “split or splint of wood,” *Fente du bois*—pron. fahnt duuh bwah; Ger. *Holzsplit* or *Holzreissen*—pron. holts-spleent or -rice-enn. Syn. Fr. for “splitting,” *Ecorchure*—pron. eh-korr-shuur; Ger. *Spleissung*. Syn. Fr. for “splitter,” *Fendoir*—pron. fang-dwah; Ger. *Spleisser*—pron. splice-err.

Spokeshave, in Tools. A hand tool used to shave or slice off small parts, shavings or parings from a piece of wood. It consists of two parts—the cutting blade and the handle. The cutter is a blade some three inches or so in length, thick at one edge or back, and brought to a fine cutting edge at front—the slope or bevel being at the upper surface, so that the lower which is next to the handle is flat. At each end the blade is hammered out to form two small and short rods, and these are turned down at right angles at end to the lower face. These rods or “fangs” pass into two holes made at corresponding parts of the handle, and are made longer than its thickness, so that when the cutting blade or cutter is in working position they project some distance beyond the back of the handle. The rods of the cutter fit very tightly in the holes of the handle. The “spokeshave” is set so that it can take a thicker or thinner and finer cut by simply striking the projecting ends of rods at the back of the handle, so as to make a wider space between the edge of cutter and face or front of handle. This, which is about eight inches in length or so, is finished at the ends so as to be easily grasped by the two hands; and the piece of wood to be wrought being secured firmly, the spokeshave is worked to and fro, the cutting edge taking off shavings or cuttings of such thickness as may be required. Each shaving as it is taken off passes out at the back of the cutter between its lower and flat face and the upper surface of handles. Syn. Fr. *Racloire*—pron. rah-klwahr; also *Bastringue racloir*—pron. bah-strang or *Wastringle*—pron. vass-trainh-gel; Ger. *Bandhobel* or *Speichenhobel*—pron. bant-hoh-bell or spych-enn-hoh-bell.

Spout, in Construction, as the rain-water spout. A tube or an open channel made in a part through which water is passed or projected or flows. *Der.* Our word is from the Latin *spuere*, to spue out, or *sputare*, to spit or sputter. Syn. Fr. for “spout of a gutter,” *Gargouille*—pron. garr-goeell; also *Tuyau de décharge de l'eau*—pron. twee-oh deh day-sharrjh deh loh, or *Dégorgoir*—pron. day-gorjh-wahr; also *Tuyau de gouttière*—pron. twee-oh deh goo-tyairr; Ger. *Dachrinnenröhre*—literally “roof gutter tube”—pron. dach-rin-nen-roeh-reh; also *Dachwasserspeier*—literally “the roof-water

spitter" or "vomiter" (from *speien*, to spit) —pron. dach-vass-err-spy-err.

Spouting, in *Carpentry*. The range of spouts or open channels placed almost horizontally or on a slight slope at the eaves of a roof, and pipes or tubes placed vertically at certain points to lead the rain-water to the drain, or the rain-water cistern in the case of a house. Syn. Fr. *Tuyaux des dégorgements*—pron. twee-yoh day day-gorj-mahn; also *Tuyaux de déchargement d'un toit*—pron. day-shahrj-mahn duuhn twah; Ger. *die Speiröhre vom Dach*—pron. dee spy-roehr-eh fom dahk; also *Speidrachen*—the terminating of the pipe being generally a dragon's head.

Spread, in *Masonry and Bricklaying*. To extend over a surface a material capable of being easily worked, such as mortar—to widen out. *Der*. From the Old English *spraeden*, which has this meaning—extension so as to give greater surface, greater length and width. Syn. Fr. for "to spread" generally, *Etendre*—pron. eh-tahn-derr; also *Répandre*—pron. ray-pahn-derr, or *Déployer*—pron. day-plwah-yea; Ger. *Ausbreiten*—pron. ows-bri-tenn; also *Bedecken*—pron. beh-deck-enn, or *Ausdehnen*—pron. owss-dayn-en. Syn. Fr. for "spread out" or "over," as lime, *Régaler le chaux*—pron. ray-gah-lay, show; Ger. *Kalk ausbreiten*—pron. kahllk owss-brite-enn, or *mit Kalk bedecken*. Syn. Fr. for "spreading," *Emploi en remblai*—pron. ahm-plwah-ahn rahm-blay; Ger. *Ausstreckung*—pron. owss-strekk-oong.

Sprig, in *Materials*. A little nail without a head for nailing small objects to larger ones. A French equivalent is *Un petit clou sans tête*—pron. uuhn pet-tee klooh sahn tayte; Ger. *kleiner Nagel ohne Kopf*—pron. kline-err nah-gell oh-neh kopff.

Spring, in *Architecture and Building*. The term used to indicate the start or commencement of a part, as the spring of an arch. *Der*. Our word comes from the Old English *springan*, or from the German *springen*, to leap out, to bound from one place to another. Syn. Fr. for "to spring" generally, *Sauter*—pron. soh-teh; Ger. *Springen*—pron. spring-enn. Syn. Fr. for "to spring an arch," *l'outer un arc*—pron. vooch-teh uehn arrk; Ger. *einen Bogen springen*—pron. boh-genn spring-enn.

Spring, in *Construction*. An appliance made generally of steel, which is so elastic that when compressed by some force it assumes a new position; but when the force is withdrawn or the pressure released, it goes back to its original position. (For derivation see last term.) Syn. Fr. for "(elastic) spring," *Ressort*—pron. res-sore; Ger. *Feder*. Syn. Fr. for "spring catch or latch of a door or a window," *Ressort d'une porte ou d'une fenêtre*—pron. res-sore duehn porrt oo duehn fenn-nay-terr, or *Loquet à*

ressort—pron. loh-kay; Ger. *Thürschnappfeder*, or *Fensterschnappfeder*—pron. tuchr- or fen-stershnap-fay-derr. Syn. Fr. for "helical spring," *Boudon*—pron. booh-dahn; Ger. *Drahtfeder*—pron. draht-fay-derr. Syn. Fr. for "spiral spring," *Spirale*—pron. spee-rahl; also *Spiral à boudin*; Ger. *Spiralfeder*. Syn. Fr. for "secret spring," as of a cabinet or desk drawer, *Ressort secret*—pron. res-sore say-cray; Ger. *geheime Feder*—pron. geh-hime-eh fay-derr. Syn. Fr. for "spring lock," *Serrure-ressort*—pron. serr-uehr-res-sore; also *Serrure à houssette*—pron. serr-uehr ah hoo-sett; Ger. *Schnappschloss*—pron. schnappschloss. Syn. Fr. for "spring bolt," *Verrou à ressort*—pron. ver-rooh ah res-sore; Ger. *Federriegel*—pron. fed-derr-ree-gell.

Springing Course, in *Masonry*. The stones upon which the first stones of an arch rest. Syn. Fr. *Assise des sommiers*—pron. ah-seeze day sohm-ee-ay; Ger. *Steinschicht der Widerlager*—pron. stine-shicht dare vee-derr-lah-gerr.

Springing of an Arch, in *Masonry*. The term used to indicate the point where an arch begins. Syn. Fr. *Naissance d'un arc ou de voute*—pron. nay-sahnce duuhn arc ooh day voot; also *Abattue*—pron. ah-batt-uh, or *Retombée*—ray-tom-bay; Ger. *Kampferlinie*—pron. kamm-pferr-leen-yeh; also *Anlauf eines Gewölbes*—pron. ann-louf in-ess gay-voell-bes.

Springing Stone of an Arch, in *Masonry*. The synonym for which is "skew back," and also "impost." Syn. Fr. *Coussinet*—pron. koo-see-nay; also *Imposte*—pron. aihm-posst; Ger. *Kampfer*; also *Kampferschicht*. Syn. Fr. for "springing wall"—the synonym for which is projecting wall—*Mur retombée*—pron. muuhr ray-tom-bay, or *Mur à retombe*—pron. muuhr ah ray-tombb; also *Mur en abattue*—pron. muuhr ahn ah-bah-tuuh.

Spruce Timber, in *Materials*. A building wood obtained chiefly from the north of Europe—hence the synonyms below. Syn. Fr. for "spruce deals," *Planche du Nord*—pron. plahnsh duuh nore; Ger. *nordische Dielen*—pron. norr-dish-eh deel-enn.

Square, in *Building Construction and Design*. The term used to indicate that the lines or bounding lines of an object or body are at right angles to and equal to each other. *Der*. Our word comes from the Old French *esquerre*, or from the Latin *quadratus*, a square. Syn. Fr. for "square" generally, *Carré*—pron. kah-ray; also *Carrément*—pron. kah-ray-mahn; Ger. *Quadrat*—pron. kwah-draht; also *Winkelrecht*—pron. vink-ell-recht. Syn. Fr. for "to set square" or "to square," *Equerrer*—pron. eh-kerr-eh; Ger. in *Winkel bringen*—pron. vink-ell bring-enn. Syn. Fr. for "square or squared timber," *Bois à equerrer*—pron. bwah ah eh-kerr-eh; Ger. *viereckiges*

Holz. Syn. Fr. for "set square," used in building drawing, *Triangle viseur*—pron. tree-ahn-gel vee-zeuhr; also *Règle*—pron. ray-g'll; Ger. *Winkelweiser*—pron. vink-ell-vy-zerr. Syn. Fr. for "carpenter's and joiner's square," à *Faces*—pron. ah fass-ees; also *Pièce carrée*—pron. pee-ace kah-ray; Ger. *Balkenkantig*—pron. bahl-kenn-kann-tig. Syn. Fr. for "by the square," or "square set," à *l'Equerre*—pron. ah lake-kairr; Ger. *Winkelrecht*—pron. vink-ell-recht. Syn. Fr. for "out of the square" or "off the square," *Fausse équerre*—pron. fohss eh-kairr; Ger. *Schiefwinkelig*—pron. sheef-vink-ell-ig. Syn. Fr. for "not cut square," as in the case of the face of a piece of timber, when one side or edge is not at right angles to the other, *In-équarri*—pron. aihn-eh-kairr-ee; Ger. *Nicht winkelrecht behauen*—pron. nicht vink-ell-recht beh-how-enn. Syn. Fr. for "square bar-iron," *Fer carré*—pron. fairr karr-eh; also *Fer en barres avec section carré*—pron. fairr ahn barr ah-veck seck-see-on karr-eh; Ger. *viereckiges Eisen*—pron. feer-ekk-ich-es ize-enn. Syn. Fr. for "squared timber," *Poutres*—pron. pooh-terr; also *Bois équarri*—pron. bwah eh-karr-ee, or *Bois en carré*—pron. bwah ahn karr-eh; Ger. *winkelrechtes Holz*; also *viereckiges Holz*. Syn. Fr. for "squaring," *Equarrissement*—pron. eh-karr-eece-mahn; also *Ecarrissement*—pron. eh-karr-eece-mahn; Ger. *Viereckig behauen*. Syn. Fr. for "squared," *Refait*—pron. reh-fay; Ger. *Winkelrecht behauen*. Syn. Fr. for "squareness," *Equarrissage*—pron. eh-karr-eece-ahj; Ger. *Winkelrecht gestalten*—pron. vink-ell-recht geh-stahlten. Syn. Fr. for "square foot," *un Pied carré*—pron. pee-ay karr-eh; Ger. *Kreuzfuss*—literally "a cross foot"—that is, a foot measured across both ways—pron. kroytts-fooss.

Square, A. of slater's work, is one hundred feet superficial. The term is also applied to other work. Syn. Fr. for "a square," *Aire*, or *Aire-ardoise*; Ger. *Schieferfeld*.

Squaring, in Slater's Work. Cutting the sides and bottom of a slate true.

Squaring, in Joinery. Trying work by the "square." In *Handrailing* for stairs the term is applied to the work of cutting a plank or piece of stuff to the form of hand-rail required, so that all the vertical sections of it shall be at right angles. Syn. Fr. *Equarrissage*—pron. eh-karr-eece-ahj; Ger. *Vierecke behauen*—pron. feer-eck-eh bay-how-enn.

Stable, in Farm Architecture. The building or one of the apartments in a farmery in which horses are kept or stabled. *Der.* Somewhat obscure—some suppose that it comes from the Danish *staven*, to fix, to secure; others that it is from the French *étale*, which is from *établir*, to establish, to give stability, or that it may be a mere

acceptation of the term stable, in the sense of being secured—which again is from the Latin *stabilis*, firm, secure. Syn. Fr. *Etable*—pron. eh-tah-bell; Ger. *Stall*; also *Viehstall*—that is, "cow stall" or stalling. Syn. Fr. for "stabling" or "stables," *Stabulation*—pron. stah-bueh-lah-see-on; also *Etablieres*—pron. eh-tah-blaihr-ee; also *Ecurie*—pron. eh-kuuhr-ee. Syn. Fr. for "stall," *Étal*—pron. eh-taahl; Ger. *Stand*—pron. stand. Syn. Fr. for "stable fittings," or "finishings" *Arrangement* (ah-rahnj-mahn) *d'un étable*; also *Meubles* (meubell)—i.e. furniture—*d'un étable*; Ger. *Feste Gegenstände im Stall*—pron. fess-teh gay-genn-stenn-day fom stall.

Stability, in Construction. The term used to convey the idea of security or firmness in a structure or part of a structure. (For derivation of the word see Stable.) Syn. Fr. *Stabilité*—pron. stah-bee-lee-tay; Ger. *Stabilität*, or *Standfestigkeit*—pron. stah-beel-ee-tate, stant-fess-tich-kite.

Stack, in Construction. A term used to indicate a cluster or collection of objects, as a stack of chimneys or a stack of (cut) wood. Syn. Fr. *Meule*—pron. meuhl; Ger. *Fehm*—pron. fame; also *Getreideschober*—pron. gay-tride-eh-sho-berr; also *Diemen*. Syn. Fr. for "stack of chimneys," *Corps de cheminée*—pron. korr day shee-mee-nay; also *Souche*—pron. soosh; Ger. *Schornstein*—pron. shorn-stine. Syn. Fr. for "stack of wood" (i.e. timber cut into planks, or round timber or square battens piled up one upon another), *Pile de bois*—pron. peel day bwah; Ger. *Holzstoss*—pron. holts-stohss.

Stage, in Construction. That part of a scaffolding on which the men stand while at work—the flooring planks of a scaffold. It is often used as synonymous with scaffold. *Der.* Our word is from the Old English *stigan*, to ascend, mount, or go up; or it is the same word as the Danish *stage*, a ladder, or it may come from the French *étage*, a floor or story, or the German *steigen*, to mount, to ascend. Syn. Fr. *Echafaud*—pron. eh-shah-foh; Ger. *Gestell*—pron. gess-tell. Syn. Fr. for "the resting-place or working floor of a scaffold," *Repos d'un échafaud*—pron. ray-poh duuhn eh-shah-foh.

Stained Wood or Glass—that is, having colour applied to those materials. In the case of wood, the process of staining is allied to the dying of textile fabrics, such as wool, cotton, and the like—the colours being applied in a more or less liquid form, and, being absorbed or taken up by the fibres of the wood, become a part of it, and are permanent. In the case of glass the colours are applied as a paint, and are burnt in or made permanent by processes more or less elaborate. *Der.* Our word may come from the Old English *ystain*, spread out, from the

German *teinen*, to extend or stretch out, from the French *teindre*, to dye, to stain, or from the Latin *tingere*, to dye. Syn. Fr. for "stained wood," *Bois en teinture*—pron. bwah ahn taihn-tuuh; Ger. *gefärbtes Holz*—pron. geh-ferrb-tes hollts. Syn. Fr. for "stained glass," *Peintre sur verre*—pron. painh-terr suuhr vaihr—or *teinture*; Ger. *Glasmaleri*—pron. glahce-mahl-err-ee. Syn. Fr. for "stained wood," *Bois à couleur*—pron. bwah ah cool-euhr; Ger. *Holzfarbe*. Syn. Fr. for "stained glass," *Verre de couleur à pigment* (peeg-mahn) for "stained paper," *Papier de couleur*; Ger. *Farbepapier*—pron. fahr-bey-pah-pee-err. Syn. Fr. for "paper stainer," equivalent to wall-paper maker, *Teinturier* (stainer) *du papier*—pron. taiht-euhr-yea duh pah-pee-eh; Ger. *Papierfärber*—pron. ferr-berr.

Stairs, in Construction. Der. Our word is from the Old English *staeger*, and this from *stigan*, to rise or ascend. An arrangement or construction of stone, iron, but generally of wood, in house building, by which access is gained from a low to a high level, from one floor or storey of a building to the other. Each stair, or as it is sometimes part of a staircase (which see), is made up of a series of "steps" (which see). The stair acts on the principle of the inclined plane, by which access can be had to a place situated above the level of another in a much more convenient way than by climbing, as by a ladder, which was doubtless the original mode of getting from the low to the high part of a house, and which is still used in some structures, as stables, huts, etc., where there is not space sufficient to place the inclined plane of stairs. To facilitate going up and down the inclined plane, its surface is provided with projecting footholds, which are called steps (which see). Stairs are of different kinds—as common or straight stairs are made up of what is called a "flight of steps" going directly or straight up, but in an inclined position from one floor to another. Stairs with landings are those in which there is more than one flight of steps—a flat stage or resting-place being placed between the respective flights. In this form of stair the direction of the flight may be, and is generally, changed—that is, the first flight may go straight up parallel to a wall, and the next flight may go to the left or the right hand, in a direction at right angles to the wall. A geometrical or winding staircase is one in which the steps are perpetually turning or changing in direction, winding round spiral fashion; hence it is often called a spiral staircase. Syn. Fr. for "stairs" generally, *Escalier*—pron. ess-kall-yea; Ger. *Treppe*—pron. trepp-eh; also *Stiege*—pron. stee-geh. Syn. Fr. for "common or straight stairs," *Escalier droit* (drwah); also *Escalier commun* (kom-muhn); also *Escalier à rampe*

(ah rahmp); Ger. *gerade Treppe*—pron. gerr-ah-day trepp-eh; also *einsäulige Treppe*—pron. ine-zoy-lig-eh trepp-eh; also *Gemeintreppe*—pron. gemm-ine-trepp-eh. Syn. Fr. for "stairs with landing-places," *Escalier à repos*, or *à paliers*—pron. ah pall-yea (*palier*, a landing or resting-place); Ger. *Landungsplatztreppe*—pron. lant-oohngs-platts-trepp-eh; also *Flachplatz-* (flat space) *treppe*—pron. flach-platts-trepp-eh. Syn. Fr. for "geometrical stairs," *Escalier suspendu dit vis à jour*—that is, stairs suspended (without resting on the walls), called or known as open to the daylight—pron. ess-kall-yea suuhs-pahn-duuh dee veeze ah jhoor; Ger. *Wendeltreppe*—i.e. turning (our term winding comes from this)—pron. ven-dell-trepp-eh. Syn. Fr. for "grand stairs"—that is, those stairs in halls or mansions, disposed in some conspicuous place, wide and spacious, generally highly decorated in newels and handrail and balustrade (some of the grand stairs of ancient houses are magnificent in design, and simply first-class in construction, and form most striking features in the interior of the mansion)—*Escalier d'honneur* (don-neuhr); also *Grand escalier*—pron. grahng-daice-kahl-ee-eh; Ger. *grosse Treppe*—pron. gross-eh trepp-eh; also *Haupttreppe*—i.e. head or high stairs—pron. howpt-trepp-eh. Syn. Fr. for "servants' stairs," *Escalier des domestiques* (deh doh-mess-teek); Ger. *Dienertreppe*—pron. dee-nerr-trepp-eh. Syn. Fr. for "private stairs" or "secret stairs," *Escalier dérobé* (day-roh-bay); Ger. *Geheimtreppe*—pron. gay-hime-trepp-eh. (See Back Stairs.) Syn. Fr. for "turret stairs"—that is, winding stairs in a circular well-hole, *Escalier hors d'œuvre* (hoar deuh-verr); Ger. *Thürmchentreppe*—pron. tuehrm-chen-trepp-eh. Syn. Fr. for "stairhead," *Tête d'escalier*—pron. tate dess-kall-yea; also *Haut de l'escalier*—pron. hoh duh less-kall-yea; Ger. *Treppenhaupt*; also *Treppenkopf*. Syn. Fr. for "foot of stairs," *Première marche d'un escalier*—pron. prem-yairr marrsh duuhn ess-kall-yea.

Staircase, in Construction. The part of the building in which the stairs or flight of steps are placed. A synonym often used is "well hole" of stairs, but this term is confined to construction in which the stairs are enclosed by walls; also to the aperture in the floor above, through which the stairs are seen and daylight admitted to them. The Syn. Fr. for "staircase" generally is the same as for stairs, *Escalier*. The German gives a more definite idea, as that of a special part in which the stairs are placed—thus *Treppenhaus*—literally "stairhouse"—pron. trep-pen-house. There is, however, another Syn. Fr. which embodies this idea—namely, *Cage d'escalier*, the enclosing cage—pron. kahj dess-kall-yea. Many of the terms employed, as in the last paragraph, stairs, are

applicable to this—such as winding or geometrical staircase, private staircase, and the like—stairs and staircase being often used as synonymous, and with many indiscriminately.

Stake Out, To, in Building. The operation of laying down the lines on the ground or site of the house which give the outline of the ground plan. This is done by driving in stakes at the angles or points where lines meet; and if the distance between these be great, stakes may be placed along the line at intervals. Syn. Fr. *Tracer le plan d'un bâtiment*—pron. trah-say leh plahn duhn bah-tee-mahn; also *Jalonner*—pron. jah-lon-nay; Ger. *ein Haus ausstecken*—pron. ine house owss-stek-ken. Syn. Fr. for “a stake,” a long piece of wood pointed so that it can be driven into the ground, *Montant*—pron. mohn-tahn; also *Estache*—pron. ess-tahsh; Ger. *Staket*—pron. stah-keht. Der. Our word comes from the Old English *staca*, and this from *sticca*, a staff; *staca* is a pointed stick.

Stalk, Chimney, in Construction. A term sometimes used as synonymous with stack, which is the more correct of the two (see Stack).

Stanchions; also Standels or Stanchels, in Building. The iron bars which run vertically up between the mullions of a Gothic or other window. In church architecture they are terminated at upper end by a spearlike head, with scroll-like ends, something in disposition like the trefoil ornament. The term is sometimes used in place of standard posts of timber, as the upright poles used in scaffolding, and also applied to the vertical iron bars which fill in windows which are guarded from ingress or egress, as in prisons. Der. Our word is from the French *stancher*, to stop or stanch, and this from the Latin *stagnare*, to stop. Syn. Fr. for “iron bar stanchions,” *Treillis de fer*—pron. trayl-yee deh fairr; also *Fer de lance*, referring to the lance-shaped termination to the bar (see above)—pron. fairr deh lahnss; Ger. *Fenstereisengitter*—pron. fenn-sterr-i-zen-git-terr. Syn. Fr. for “stanchion,” considered as a timber post, *Epontille*—pron. eh-pohn-teel; Ger. *Stütze*—pron. stueht-tseh.

Standard, in Construction. A term applied to a vertical upright or pillar, as of stone or of timber. Der. The term is taken from the Old English words *standan*, to stand or remain still or in one position, and *-ard*, a sort of, a kind of. Syn. Fr. for “standard,” as a post in carpentry, *Montant*—pron. mohn-tahn; also *Montant de cloison*—pron. deh clwah-zon; also *Epars montant*—pron. eh-parr; Ger. *Pfosten*—pron. pfoss-tenn; also *Ständer*—pron. stenn-derr; also *Wandsäule*—i.e. “wall pillar”—pron. vant-zoy-leh.

Standard Measure—Standard Gauge.

The term standard is also applied to indicate that certain sizes or dimensions once decided upon are to be retained for permanent reference and comparison as “Standard Measures,” such as the inch, the foot, etc. Syn. Fr. for “standard measure,” *Potence*—pron. poh-tahnss; Ger. *Maszstock*. Syn. Fr. for “standard gauge,” *Etalon*—pron. eh-tahl-on; also *Echantillon*—pron. eh-shahn-teel-yon; also *Jauge*—pron. johh; Ger. *Eichmasz*—pron. eych-mahss (from *eichen*, to gauge), or *Richtmass*—pron. richt-mahss; also *Meistereiche*—pron. mice-sterr-eych-eh, or *Normaleiche*.

Standing, in Building. A term sometimes used as synonymous with “site” (which see). Syn. Fr. for “a standing prop or post,” *Pointal*—pron. pwahn-tahl; Ger. *Stellungs- or Standungsposten*—pron. stell-oongs- or stand-oongs-pfoss-ten. Syn. Fr. for “standing wall,” *Mur d'un filon*—pron. muehr duhn fee-lon; also *Mur emplacement*—pron. muehr ahm-plahss-mahn; Ger. *Wandstellung*—pron. vant-stell-oong; also *Stellmauer*.

Staple, in Ironmongery. The part of a padlock arrangement which is driven into the fixed post of a gate or the side of a wall, over which is passed the hasp secured to the gate or door, and through which the hook of the padlock is passed before locking it. The staple is bent, giving two legs which are pointed so that it can be driven into the post or wall, leaving a hoop or loop or eye projecting. The staple is also used for a door, etc., secured by a bolt, the bolt passing into the eye of the staple. Der. Our word is from the Old Saxon *stapel*, a post, a prop—something fixed. Some hold that it is a corruption of the first part of the Latin word *stabilis*, fixed, steady, secure. Syn. Fr. for the “staple of a door,” locking or securing arrangement, *Fermeoir*—pron. fairr-mwahr; also *Nappe*—pron. napp; also *Crampon*—pron. krahm-pon, or *Targette*—pron. tahr-gett; Ger. *Haspen*; also *Schluss shaken*, or *Schliesseisen*, or *Hakenbolzen*—pron. hahss-penn, schloss-hah-kenn, shleece-eye-zenn, hah-kenn-bollt-senn.

Start, in Building. Synonymous with to commence, as to start the building, the works, or some definite part of the work—as to start the staking out or the foundation excavations. Der. Our word is from the Old English *sterte*, to move immediately or suddenly, to begin to move at once, as one does when one is starting. Syn. Fr. for “to start a building,” *Commencer un bâtiment*—pron. com-mahn-say uuhn bah-tee-mahn; another phrase or equivalent is *Mettre en marche*—pron. mett-err ahn marrrsh; Ger. *einen Bau anfangen*—pron. bough-ahn-fang-enn; also *erstes Werk einer neuen Arbeit*, the first work of a new undertaking—pron. airr-stes vairrk ine-err noy-enn ahr-bite.

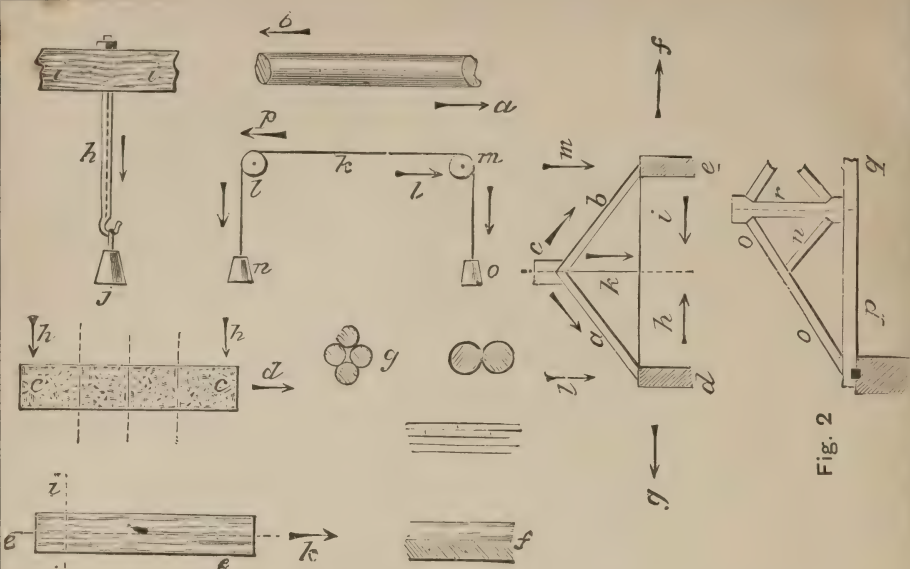


Fig. 1

Fig. 2

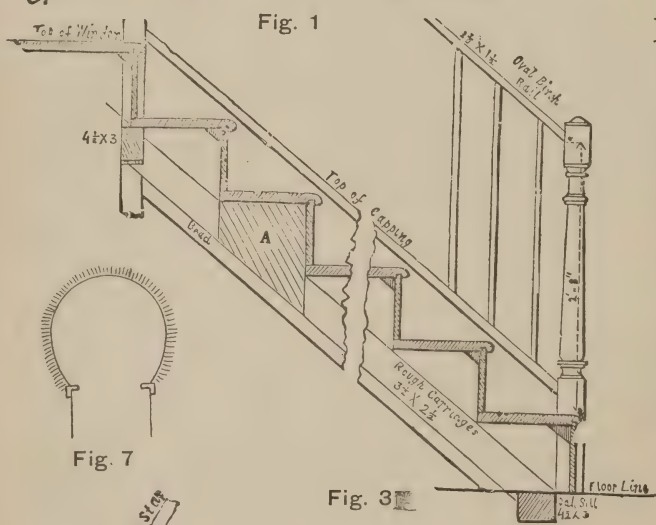


Fig. 3

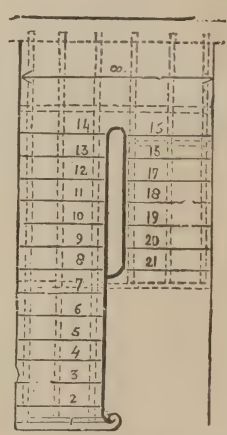


Fig. 4

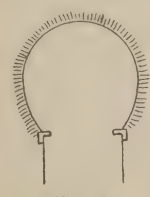


Fig. 7

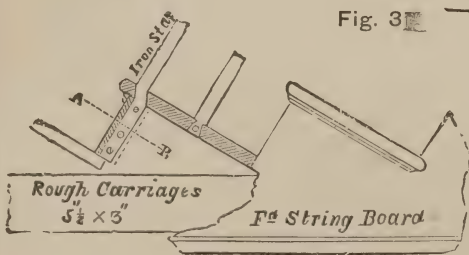


Fig. 5.

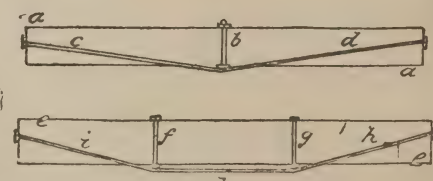


Fig. 6

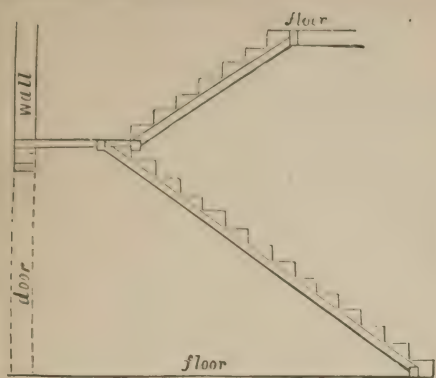


Fig. 1

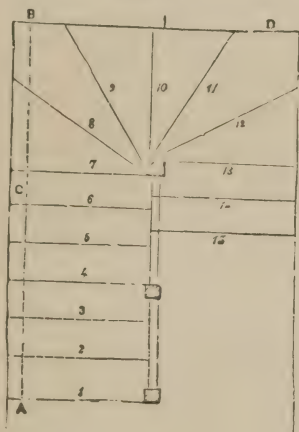


Fig. 2

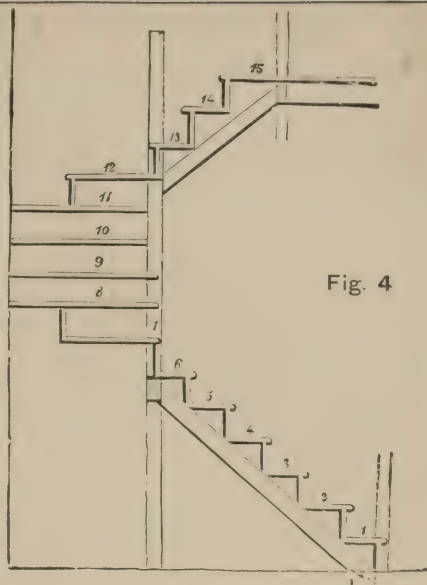


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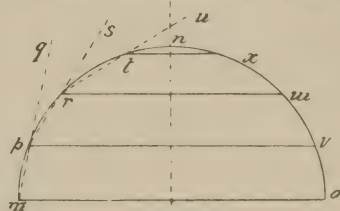
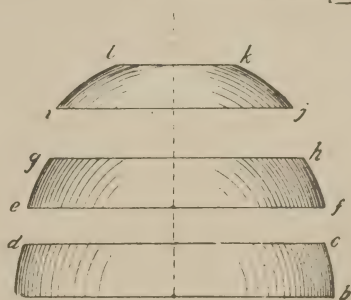


Fig. 5

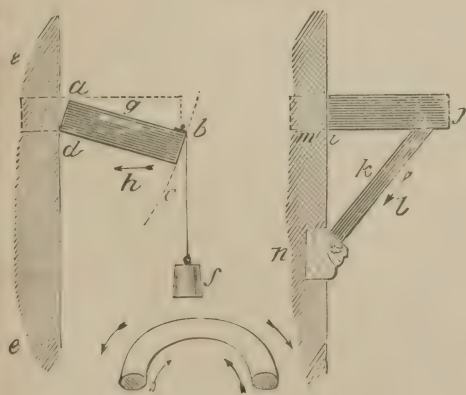


Fig. 3

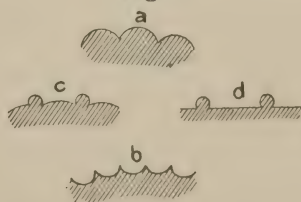


Fig. 6



Statement of Work Done, in Building. A "statement of materials delivered" to be used or which have been used in the erection of a building. The "statement of work done" is the document on which the architect authorises the amount of money to be advanced at certain intervals—the architect checking off its details after examination of the work. In the statement of materials delivered all the items are checked off by the clerk of works or other authorised party, and when signed by him it assumes the form of a receipt, to which reference can be made by the contractor to prove that the materials were delivered. *Der.* Our word comes from the Latin *status* (from *stare*, to stand), signifying a document which stands and is not liable to be changed. *Syn.* Fr. for "statement of work done," *Cédule d'état des travaux*—pron. say-doohl dait-ah day trah-voh; *Ger. Ausstand über geleistete Arbeit*—pron. owse-stant ooh-eeb-err gay-lice-tay-teh ahr-bite; also *Kostenanschlag*. *Syn.* Fr. for "statement of materials delivered," *Cédule d'état des matériaux employés, or en emplacement*—pron. mah-teer-ee-oh ahm-plass-eh, or ahng ahm-plahss-mang; also *Cédule d'état des approvisionnements*—pron. ah-proh-veeze-ee-ohng-mahng.

Statuary, in Architecture. The carved or chiselled figures, generally in stone or marble, of the human figure and of animals used to decorate buildings, etc. *Der.* Our word is from the Latin *statuaria*, and this from *statua*, a statue, an image or simulacrum of a human being or an animal. *Syn.* Fr. *Statuaire*—pron. stah-tueh-airr; also *Sculpture*—pron. skuelp-tuuhr; *Ger. Bildhauerei*—literally "image hewing"—pron. bild-how-err-ei; also *Bildhauerkunst*—i.e. "image hewing art"—pron. bild-how-err-koohnst, or *Plastik*—pron. plahs-teek. *Syn.* Fr. for a "statue," *Statue*—pron. stah-tuuh; *Ger. Standbild*, a standing image—pron. stant-billd; also *Denkmal, or Statue*. *Syn.* Fr. for a "marble statue," *Statue en marbre*—pron. stah-tuuh ahn marr-berr; *Ger. marmornes Standbild*—pron. mahr-moh-ness stant-billd.

Stave, in Materials. A kind or class of timber used for various works. They are longish pieces, thin and narrow, and sometimes used to line cesspools, etc., and as clapboards for covering the outside of small sheds (see Clapboard). *Der.* Our word is from the Old English *staff*, or the German *Stab*, or the Danish *stav*, which is almost our word. *Syn.* Fr. *Douve*—pron. doohv; *Ger. Daube*—pron. dow-(as now) beh; also *Stab*—pron. stahb. *Syn.* Fr. for a "little or small stave," *Douville* or *Douelle*—pron. dooh-vell or dooh-ell; *Ger. kleine Daube*—pron. kline-eh-dow-beh.

Stay, in Construction. A synonym for Brace or Strut (which see). *Der.* Our word

is from the Swedish *sta*, to remain in place or to hold back, as in the case of a stay acting as a brace or prop, to prevent from giving way, to support; or it may be from the Latin *stare*, to stand. *Syn.* Fr. for a "stay, a prop," *Coulombe*—pron. koohlomb; also *Entretoise*—pron. ahn-terr-twahze, or *Poteau*—pron. poh-toh; *Ger. Ständer*—pron. stenn-derr; also *Pfosten*—pron. pfoss-tenn, or *Tragepfosten*—pron. trah-geh-pfoss-tenn; also *Bandsäule*—pron. bahnt-zoy-leh. *Syn.* Fr. for a "diagonal stay"—that is, an inclined strut or brace, *Poteau diagonal*—pron. poh-toh dee-ah-goh-nahl; also *Bande diagonale*—pron. bahnd dee-ah-goh-nahl, or *Bande inclinée*—pron. bahnd aihn-klée-nay; *Ger. diagonaler Sperrpfosten*—pron. dee-ah-goh-nal-err sperr-pfoss-tenn (from *sperren*, to stop). *Syn.* Fr. for "staying"—that is, propping up or shoring up, *Étayement*—pron. eh-tay-mahn; also *les Etais posés à prévenir les ébaulements d'un mur*—pron. laize eh-tay poh-zay ah pray-veh-neer laize eh-bohl-mahn duhn muhr; *Ger. Stützen*—pron. stuet-senn.

Steady, in Construction. A term sometimes used to indicate that a structure or part of it is firm, secure. *Der.* The word is from the Old English *stede*, a place—that is, steady means to keep in one place. *Syn.* Fr. *Stable*—pron. stah-bell; also *Fixe*—pron. feeks, or *Assuré*—pron. ah-suehr-ay; also *Ferme*—pron. ferrm, or *Constant*—pron. kohn-stahn; *Ger. Beständig*—pron. beh-stend-ich; also *Befestigt*—pron. beh-fesst-icht, or *Standhaft*—pron. stahnt-hafft.

Steel, in Materials. The metal the base of which is iron with a small percentage of carbon. This is a general definition only, as there is no precise definition of what steel is which is accepted by all practical men. There are different definitions, each of which has its supporters, as *per contra* they have those who deny their accuracy. Thus, though the term "Bessemer steel," indicating the metal made by the converter, and otherwise known as the acid process of making steel so called, is so widely used and accepted, still there are numerous practical authorities who deny that it is a steel at all, being, as they say, only a very superior quality of wrought iron. *Der.* Our word is from the Old English *stel*, or the German *stahl*—that is, a metal combined with a small percentage of carbon. *Syn.* Fr. for "steel" generally, *d'Acier*—pron. dass-yea; *Ger. Stahl*. *Syn.* Fr. for "crucible (or cast) steel," *Acier de creuset*—pron. ass-yea deh kreugh-zay; *Ger. Tiegelgußstahl*—pron. tee-gell-gooss-stahl. *Syn.* Fr. for "tempered steel," *Acier à trempe*—pron. ass-yea ah trahmp; *Ger. gehärteter Stahl*—pron. geh-hairr-tet-err stahl. *Syn.* Fr. for "to temper steel," *Tremper l'acier*—pron. trahm-pay lass-yea; *Ger. Stahl abhärten*—pron. stahl ahp-hairr-ten. *Syn.*

Fr. for "the tempering of steel," *Trempe de l'acier*—pron. trahmp day lass-yea; Ger. *Stahlhärtung*—pron. stahl-hairr-toong. Syn. Fr. for "untempered steel," *Acier non trempé*—pron. ass-yea non trahm-pay; Ger. *ungehärteter Stahl*—pron. oohn-geh-hairr-teh-terr stahl. Syn. Fr. for "steel wire," *Corde d'acier*—pron. korrd dass-yea; also *Acier rond tiré*—pron. ass-yea rawhn tee-ray; Ger. *Stahldraht*—pron. stahl-draht.

Steining, in Construction. The brick or stone lining of a well, a cesspool, an excavated hole or shaft for retaining water or liquid, is so called. Generally the stones or bricks are laid dry, but in the best work they are laid in hydraulic cement. Syn. Fr. *Mur d'un puit* (well)—pron. muhr duuhn pwee or pweeh; also *Mur d'une fosse d'aisance* (cesspool)—pron. muhr duuhn foss day-zahnss; Ger. *Brunnenmauer*—pron. broon-nenn-mow-err; also *Abtrittsgrubenmauer*—pron. app-tritts-grooh-ben-mow-err.

Stench Trap, in Drainage Work. A contrivance, so called, which traps, catches, or arrests, and keeps from entering the house, the sewer and drainage gases which flow through and are present in the interior of the drains and sewers. Many traps are but so in name, sometimes not acting at all, always more or less defectively. The principle on which a stench trap acts is simple, and may be described as a water seal. Part of the liquid, as water from the sink or slopstone in the scullery, or water from the bath, flowing down the pipe or tube to the drain, is prevented from flowing away by a bend or siphon-shaped part of the tube or like arrangement, so that a portion of the liquid always remains in it, which admits of any liquid passing from the house to the drain, but prevents any foul air or gases ascending or passing to the house through the drain tube, as they cannot pass through the liquid. Syn. Fr. for "stench trap," *Soupape de dégagement*, or *Soupape d'un tuyau d'égout*—pron. sooh-pahp deh day-gahj-mahn, or duuhn twee-oh day-gooh; Ger. *Schliessklappe der Siele*—pron. shleess-klap-peh derr seel-eh.

Stencilling, in Decoration of Walls, etc. A cheap method of producing decorative designs on flat surfaces, by the employment of what are called "stencil plates." These consist of thin plates of brass—thickish paper or thin pasteboard is sometimes used—on which in the first instance the design, scrollwork or otherwise, is drawn in outline. The parts enclosed by the lines, or the boundary lines being followed, are then accurately cut out by appropriate tools, leaving sharp, well-defined edges. The stencil plate is then ready for use. It is laid flat upon the surface to be decorated with the special design, and held fast there with one hand, while with the other the surface is gone over firmly with a brush charged with the

special colour desired; the paint or colour is thus forced between the lines of the cut-out spaces in the plate and deposited on the wall. By having the design drawn as a "repeat," any length of wall surface can be decorated. When carefully done, stencilling work looks as well as devices put in by hand, and is very much cheaper and much more quickly done. Syn. Fr. *Patronage*—pron. pah-troh-nahj; Ger. *Mustern*—pron. mooss-terr; also *Malerei mit Patrone*—i.e. painting with stencil plates—pron. mahl-err-eye mit pah-troh-neh. Syn. Fr. for "stencilling," *Patron*—pron. pah-trong; Ger. *Patrone*—pron. pah-troh-neh; also *Schablone*—pron. shah-bloh-neh; also *Mustern*—pron. mooohss-terr. Syn. Fr. for "to stencil," *Peindre au patron*—pron. painh-derr oh pah-tron; Ger. *Schabloniren*—pron. shah-blow-neer-enn; also *Patroniren*—pron. pah-troh-neer-enn.

Steps, in Staircasing. The parts of a stair on which the feet are placed in ascending or descending stairs (see Stairs). Each step is composed of two parts—first, the horizontal, which gives the flat bearing surface on which the feet rest, this being called the "tread"; and second, the vertical part which supports the outer edge of the "tread." As the height of this vertical part defines the height of the step proper, making it either a high or a low step, it is called the "riser." A very convenient and easily taken height for the "riser," which properly includes the thickness of the "tread," is seven inches. A convenient breadth for the "tread" is nine inches. Steps, or rather the "treads" of the steps, are most convenient in stairs when they are of uniform width throughout their length. In this case they are termed "flyer steps," or more generally "flyers" only. But in some cases, as in small houses and in badly planned staircases, it is not always easy to get the necessary number of flyers, or parallel-edged steps, within the height given. Triangular-shaped steps are, therefore, used; and these being much narrower at one end than at the other are very inconvenient, and often dangerous in use, as the narrow parts give little and in some forms practically no foothold. Such steps are called "winders," as the steps wind round a central point—the newel—and to which all the narrow ends of the winding steps point. Der. The word "step" comes from the Old English *steppan*, to tread, to take one step or make one advance of the foot at a time. Syn. Fr. *Marche*—pron. marrsh, or *Degré*—pron. deh-gray; also *Montée*—pron. monn-tay, or *Gradin*—pron. grah-daihn; Ger. *Treppentritt*—pron. trepp-enn-tritt; also *Stufe*—pron. stoo-feh, or *Stufentritt*—pron. stoo-fenn-tritt. Syn. Fr. for "winder steps" or a "winder," *Marche dansante*—pron.

marrsh dahn-sahnt; also *Gironnée*—pron. jheer-onn-nay, or *Marche triangulaire*—pron. marrsh tree-ahn-gueh-lairr; Ger. *Wendelstufe*—pron. venn-del-stoooh-feh. Syn. Fr. for the “first or lowest step in a stair,” *Marche palière*—pron. marrsh pah-lee-airr; Ger. *erster Treppentritt*—pron. airrs-terr-trep-pen-tritt; also *Treppenarm* or *Anfangsstufe*—pron. ann-fangs-stoooh-feh. Syn. Fr. for the “last or highest step of a stair,” *Marche-pied d’un escalier*—pron. marrsh-peay duuhn ess-kahl-yea; also *La dernière* (lah dairr-nee-airr) *marche d’un escalier*; Ger. *oberster* (oh-berr-ster) *Treppentritt* or *Stufentritt*. Syn. Fr. for a “moulded step”—that is, where the front edge of the step, which is technically called the “nosing,” in place of being flush with the face of tread, projects over it, and is finished with a moulding, frequently an ogee moulding—*Marche moulée*—pron. marrsh mooohl-eh; Ger. *gesimter Treppentritt*—pron. geh-zimm-ster-trep-pen-tritt. A “step ladder” is one provided with flat-faced steps in place of the cylindrical bars or round “rungs” of ordinary ladders. Step ladders are usually finished at top with a small platform, on which the workman—as painter, plasterer, etc.—can stand. The step ladder has a hinged frame at the back, which can be extended so as to give a broad, steady base, on which the ladder stands. This and the ladder part are kept apart while the step ladder is in use by an iron stay-bar, which is jointed at one end to the back hinged frame, and goes into a staple or catch in the side of the ladder part. Syn. Fr. for “step ladder,” *Echelle de meunier*—pron. eh-shell deh meuhn-yea; also *Echelle avec marches*; Ger. *Leiter mit Treppentritt* or *Stufe*—pron. lite-err, trep-pen-tritt; also *Stufenleiter*, *Leitertreppe*, or *Treppenleiter*—that is, a “stepped ladder.” Syn. Fr. for “step-stone”—used in the same way as we say hearthstone—that is, the first step of the house, or the threshold, otherwise the “front door step”—*Marche de porte*—pron. marrsh deh porrt; Ger. *Thürtreppentritt* or *Thürstufe*—pron. tuehrr-trep-pen-trit or-stoo-feh; also *Thürsteinstufe*—that is, “doorstone step”—pron. tuehrr-stine-stoo-feh.

Stereography, in Building Construction Drawing. The art of drawing or projecting solid objects on plane surfaces: problems connected with solids useful in the projection of working drawings, as in the development of surfaces of solids, such as spheres or cylinders, to find the form of boards or planks, etc., to construct parts of the same form, as domes, and of the voussoirs or arch stones of arches, vaults, etc. *Der.* Our word is from the Greek *stereos*, solid, and *graphein*, to write or draw. Syn. Fr. *Stéréographie*—pron. stay-ray-oh-grah-fee; Ger. *Stereographie*—pron. sterr-ay-oh-grah-fee; also

Darstellung der Körper auf einer Ebene—i.e. the representation of (solid) bodies upon a level (or plane surface)—pron. dahr-stell-oohng dairr koerr-perr owff ine-err aye-benn-eh. A synonym sometimes used for stereography is stereometry; but this more correctly is the art of measuring solids, though, doubtless, stereometry involves a knowledge of stereography, as bodies must be formed before they can be measured in their ultimate or final state. Syn. Fr. for “stereometry,” *Stéréométrie*—pron. stay-ray-oh-may-tree; Ger. *Stereometrie*—pron. ster-eh-oh-may-tree. Another word in which “stereo” is the leading feature is *Stereotomy*, which is the art of cutting stones, or more precisely the art of drawing the forms of stones preparatory to cutting the blocks of stone into the same form as desired. A knowledge of it is essential to the mason in the formation of his blocks for arch stones, stones of vaults, niches, and the like work, in which the cylinder and the sphere are the primary solids which give the forms. Syn. Fr. for “stereotomy,” *Stéréotomie*—pron. stay-ray-oh-toe-mee; also *Coupe des pierres*—pron. koop day pee-airr; Ger. *Stereotomie*—pron. stay-ray-oh-toh-mee; also *Darstellung eines Steindurchschnitts*—i.e. “stone through cutting” (section) representation.

Stiffness, in Materials and in Construction.

A term used to denote rigidity, stability, or capability to resist pressure, especially across. In this latter sense it is synonymous with the phrase transverse strains, or a capability to resist such. *Der.* Our word comes from the Old English *stif*—that is, not bent with ease, inflexible. Syn. Fr. for “stiff,” *Raide*—pron. rade; also *Inflexible*—pron. aihn-flake-see-bell; Ger. *Steif*—pron. stife. Syn. Fr. for “stiffness,” *Raideur*—pron. rade-euhr; also *Inflexibilité*—pron. aihn-flake-see-beel-ee-tay; Ger. *Steifheit*—pron. stife-hite. Syn. Fr. for “to stiffen,” as by putting in stays or braces or props, *Raidir*—pron. rade-eer; also *Rendre inflexible*—pron. rahn-derr aihn-flake-see-bell; Ger. *Aufsteifen*—pron. owf-stife-enn.

Stile, in Joinery (sometimes spelt *Style*).

The vertical parts of the framing of a door at the outside edges, respectively called the “hanging” and “lock” stiles. The “hanging stile” is that by which the door is “hung” to the sideposts of the door framing, which is secured to the ground or wood bricks. The “lock stile” is that to which the lock of the door is secured. The other vertical pieces in a door framing, as panelled doors, are termed “muntins” (which see). *Der.* The word style is from the Latin *stylus*, and this from the Greek *stulos*, a pillar, also a writing implement. From this derivation the mode of spelling the word adopted by some writers, as style, is more correct than

stile—which, however, is the more common of the two modes; hence our adoption of it. Syn. Fr. for “stile of a door framing,” *Montant d'une porte encadrée* (*encadre*, a framing or framework, *encadrée* is framed) —pron. mohn-tahn duuhn porrt ahn-kah-dray; also *Fausse-pièce*—pron. fohss-peeaiiss; Ger. *Thürseitenstück*—i.e. a door sidepiece—pron. tuehr-zite-enn-stueck. The vertical piece at the centre side of a French casement window is also termed a stile. Syn. Fr. for the stile of a casement window, *Poteau de la coté d'une croisée* or *Montant de croisée*—pron. poh-toh deh lah koh-tay duuhn krwah-zay, or mohn-tahn deh krwah-zay; also *Fausse-pièce d'une croisée à battants*—pron. fohss-peeaiiss duuhn krwah-zay ah bah-tahn; Ger. *Seitenstück des Fensterfüßers*—pron. zite-enn-stueck dess fenn-sterr-foot-terrs.

Stilts, in Foundation Work. The small piles driven at short intervals into the bottom soil of the site of a foundation in water, or in soft, yielding, marshy soil, and surrounding the central piles which are driven closely together. Between the stilts the spaces are filled up with stones—the whole together forming a place upon which to raise a foundation. This gives the derivation of the term—coming from stilt, a piece of wood used to raise the body or leg a foot from the ground, the Old English or Danish word for this being *stelt*. A French equivalent is *Petit pilotis*—pron. pet-tee pee-loh-tee; Ger. *kleiner Pfahl*—pron. kline-airr pfahl.

Stock Brick, in Bricklaying. A superior kind of brick. Syn. Fr. *Brique rouge*—pron. breek roohj; Ger. *Roth Ziegel*—pron. ro-teh tsee-gell.

Stone, in Materials. A mineral composed of concreted earthy matter of different kinds, as sand, etc. Der. Our word is from the Old English *stan*, or the German *Stein*. Its principal use is for building. It is also largely used for road-making, etc. Syn. Fr. for “stone” generally, *Pierre*—pron. pee-airr; Ger. *Stein*—pron. stine. Syn. Fr. for “building stone,” *Pierre à bâtir*—pron. pee-airr ah bah-teer; Ger. *Baustein*—pron. bow-(as in now) stine. Syn. Fr. for “hard stone,” *Pierre dure*—pron. pee-airr duehrr; Ger. *harter Stein*. Syn. Fr. for “soft stone,” *Pierre tendre*—pron. pee-airr tahn-derr; Ger. *weicher Stein*—pron. vy-cher-stine. Syn. Fr. for “hewn stone,” *Pierre taillée*—pron. pee-airr tah-ee-yea; Ger. *behauener Stein*—pron. bay-how-enn-err stine. Syn. Fr. for “rough-hewn stone,” *Pierre velue*—pron. pee-airr vell-uh; Ger. *Rauh behauener Stein*—pron. row-eh bay-how-enn-err stine. Syn. Fr. for “stone laid in its quarry bed”—that is, with the grain in the same direction as the stone lay in its original or natural bed—*Pierre posé en lit*—pron. pee-airr poh-zay

ahn lee; also *Pierre de plat*—pron. pee-airr deh plah, or *Moellon en lit*—pron. moh-ell-on ahn lee; Ger. *lagerecht gelegter Stein*—that is, stone laid in its right situation. Syn. Fr. for “stone laid in a direction opposite to that of the quarry bed,” *Pierre en débit* (ahn day-bee); also *Pierre posé en débit* or *Moellon en débit*; Ger. *nicht lagerecht gelegter Stein*. Syn. Fr. for “stone shivers” or “chippings of stone,” *Ecailles des pierres*—i.e. stone shells—pron. eh-kahil day pee-airr; also *Recoupes des pierres*, or simply *Recoupes*—pron. reh-koop; also *Décombes des pierres*, or simply *Décombes*—pron. day-kohm-berr; Ger. *Steinbrocken*. Syn. Fr. for “road metal”—that is, stone broken into pieces, generally of a size sufficient to pass through a ring two inches in diameter, and used to cover the surfaces of macadamised roads—*Empièrrement de chaussée*—pron. ahm-pee-airr-mahn deh show-say; also *Pierre rompue pour les routes*—pron. pee-airr rohm-pueh poor lay root; Ger. *Bruchstein für die Strasse oder Raide*—pron. brooch-stine fuehr dee strah-seh oh-derr rade-eh; also *Grundlagenstein*—pron. groohnd-lah-genn stine. Syn. Fr. for “hearthstone,” *Paillasse*—pron. pahl-yass; Ger. *Heerdstein*—pron. hairrd-stine. Syn. Fr. for “stone lintel,” *Linteau de pierre*—pron. laihn-toh deh pee-airr; Ger. *Sturzstein*—pron. stoortz-stine. Syn. Fr. for “stone step of a stair,” *Marche or Degré de pierre*; Ger. *Steintreppentritt*. Syn. Fr. for “stone stair,” *Escalier en pierre*; Ger. *Steintrittstufe*.

Stone Cutter. This term in one sense is accurate enough, as masons are or ought to be acquainted with the art of cutting out stones from the block, so as to make them of the form required, as well as with the art of setting them when cut; but in another sense it is not an accurate synonym—at least not precise enough, inasmuch as stone cutting is frequently considered as synonymous with stone carving or stone sculpture work. Stone cutting properly is the art of “setting out” by various geometrical problems (see Stereography) the forms of stones required for various structures, and thereafter cutting them out of the blocks and dressing them to the exact outlines of form required. This is the highest part of the work of the stone mason, and demands special study and experience. Hence it comes that, as so many working masons are content to be but mere mechanical setters of stone—that is, literally building them up, in the lower sense mere “hewers of stone,” and have no ambition to compass the higher walks of their art—the ability to “set out work” or design form is possessed by but few, so that to them, as distinguishing them from the majority, the term stone cutter may be applied with accuracy; so that one

may be a stone mason as well as a stone cutter, though the converse may not be correct—stone cutting involving a higher and scientific knowledge and wider experience than mere stone setting or building. Syn. Fr. for “stone cutter,” *Tailleur des pierres*—pron. tahl-yeuhr day pee-airr; Ger. *Steinhauer*—pron. stine-how-err.

Stone Mason. The workman engaged in the erection of buildings in which stone is employed, although he often combines a thorough knowledge of this art with the sister art of brick setting. This is more especially true in Scotland, where stone construction is the rule, that of brick the exception, and where brick laying or brick setting is a trade but seldom specially carried on. The term mason is more frequently applied than stone mason, there being a general tendency to abbreviate technical terms—often, indeed, to the extent of rendering them obscure, always less definite and precise. Der. The term mason is from the French *maçon*, mason, and this an abbreviation of *maçonnerie*, masonry. Syn. Fr. for “stone mason,” *Maçon*—pron. mah-sonn; also *Maçon en pierres de taille*—i.e. mason in cut stones, although a mason erects rough, unhewn stone, or rubble and drystone wall work, as well as ashlar work, in which latter the stones are cut; Ger. *Steinmauer*, or *Steinhauer*; also *Quadersteinmauer*, or *Haussteinmauer*—that is, house stone builder—the first of these terms being the more accurate, as it includes stone work generally—pron. stine-mow-rerr, stine-how-err, quah-derr-stine-mow-rerr, hauss-stine-mow-rerr. Syn. Fr. for “master mason,” *Entrepreneur de maçonnerie*—pron. ahn-terr-pren-euhr deh mah-son-neh-ree; Ger. *Steinmetz*; also the above terms for mason. Another term, which is sometimes used indifferently with that of stone mason or mason, is builder. When working in brick is involved, the term bricklayer or brick-setter is used.

Stone Packing, in Masonry. Pieces of stone used to fill up the spaces or interstices between the stones left in the centre or heart of wall; also employed to give a level or steady bed to stones the lower surfaces of which are uneven, or which lie upon stones with uneven upper surfaces. The packing stones introduced prevent the rocking—that is, give the appearance of a solid, level bed. Both practices are up to a certain point legitimate, but they are too often so dealt with that deceptive and therefore unsound work is the result. The packing in the heart or centre of the wall not being seen affords a temptation to masons so to use it in excess, that a wall which externally looks solid is really so only so far as the outside walls are concerned, the interior or heart being but a mere honeycombed work

of small stones and mortar. The evil would not be so great if mortar of the highest quality was used, as by the old masons; if so, a concreted mass would be obtained of not much less strength than a wall of solid stone throughout. Syn. Fr. for “stone packing,” *Moellons concassés*—pron. moh-ell-on kohn-kass-aye; Ger. *Bruchsteine für Mauern*—pron. brooch-stine-eh fuer mow-errn.

Stone Pavement. The side walks of streets, etc., which have a covering or foot-way of flat stones, laid level and close together, but with open joints not cemented or doweled together. Syn. Fr. *Pavé de pierres*—pron. pah-vay deh pee-airr; Ger. *Steinpflaster*—pron. stine-pflass-terr.

Stone Quarry. The place from which stones are taken or dug out. Syn. Fr. *Carrière*—pron. karr-ee-airr, or *Perrière* (a corruption of *Pierreàire*)—pron. perr-ee-air; also, as more precise, *Carrière des pierres*; Ger. *Steingrube*; also *Steinbruch*. A quarry is often formed on the side or face of a hill, so that little or no excavation or digging is required. Generally the stone is dug out from the earth, forming a large hole. In this sense the German *Steingrube* is a correct definition of a synonym sometimes used by us—namely, “stone pit,” the Syn. Fr. for which is *Pierre fosse*, or *Pierre creux* (hollow)—pron. pee-airr foss or pee-air kreuh.

Stone Yard, in Masonry. The place of business so called, in which a master mason keeps his stock of stones and building materials and appliances, and workmen engaged in stone cutting and dressing. Syn. Fr. *Chantier de pierres*—pron. shahn-tee-eh deh pee-airr; Ger. *Baugrund*, or *Bauhütte*, or *Bauhof*—pron. bow-groond, bow-huet-teh, bow-hofe.

Stool, in Cabinet Making. A low seat. Stools with us are generally used in houses, as footstools or piano-stools, or low seats for children. Syn. Fr. for “footstool,” *Tabouret*—pron. tah-boohr-eh, although this indicates a stool of any kind—stools, however, being chiefly used in France as footstools; Ger. *Stuhl*—pron. like our word; also for “footstool,” *Fusztuhl*.

Stop, in Construction. A term often used, chiefly in conjunction with other terms, such as “stop-chamfer” and the like. Der. The word is from the German *stopfen* or the Icelandic *stoppa*, to close, to cease from moving. Syn. Fr. for “to stop” generally, *Arrêter*—pron. ah-rett-eh; also *Retarder*—though this means more accurately to lessen speed than to stop all progress—pron. reh-tahr-day; also *Boucher*—pron. booh-shay—literally “to end a thing” (from *bout*, end; Ger. *Stopfen*—pron. stopp-fenn; also *Aufhalten*—pron. ouff-hahl-tenn, or *Verzögern*—pron. ferr-tsöeh-gerrn. Syn. Fr. for “stop suddenly,” *Arrêter*—pron. ah-rett-

eh, or *Halter*—pron. hahlt-eh; Ger. *Halt*; also *Zaupf*—pron. zowpf.

Store Room—Store Closet, in Domestic Architecture. The apartment set aside for the keeping—storing up—of articles useful in a house, such as groceries and the like—the term “room” or “closet” being applied according as the apartment is large or small. *Der.* Our term is from the Old English *stor*, large, extensive, vast—a place from which supplies can be had. The nearest equivalent in French is *Chambre* (room)—pron. shahm-berr, or *Cabinet* (closet)—pron. kah-bee-nay—*pour les articles domestiques*—pron. poohr laze ahr-teek-el dohmess-teek; Ger. *Kammer* (chamber) or *Cabinet* (closet) *für Hausmaterialien*—pron. kah-merr or kah-bee-nett fuer house-mah-tairr-ee-ah-lee-en. Syn. Fr. for “storehouse,” *Magazin*—pron. mah-gah-zaihn; Ger. *Laden*—pron. lah-denn.

Story or Story, in Building. A term used to indicate the different stages or floors placed vertically one above the other in a high building. The synonymous term in Scottish architecture is “flat”—so called as the floor of the story is necessarily flat. In England the term “floor” is itself synonymous with story, as “first floor,” “second floor,” etc. Syn. Fr. for “story,” *Étage*—pron. eh-tahj; Ger. *Geschoss*—pron. geh-shoss, story of a house; also *Stockwerk*—pron. stokk-vairrk. Syn. Fr. for “ground floor,” *Rez de chaussée*—literally “on a level (*rez*) with or of the road”—pron. ray deh shoh-say; also *Parterre*—pron. parr-tairr; Ger. *Untergeschoss*—pron. oon-ter-geh-shoss; also *Bodengeschoss*—literally “floor story”—pron. boh-denn-geh-shoss. Syn. Fr. for “basement story or floor,” *Bas étage*—i.e. low floor or story—pron. bahz eh-tahj; also *Bas étage œuvre*—that is, the floor or story where work is done, or a kitchen floor. The “cellar” in French is *Cave*. Syn. Fr. for “second story,” *Seconde étage*—pron. seh-kohnd eh-tahj, or simply *au Second* or *au Deuxième*—pron. oh zay-kohnd or oh deuz-yame; Ger. *zweiter Stock*—pron. tzvite-err stokk. Syn. Fr. for “third story,” *Troisième étage*—pron. trwahz-yame, or simply *au Troisième*; Ger. *drittes Geschoss*—pron. drit-tes geh-shoss. Syn. Fr. for “upper or highest story,” *Haut étage*—pron. hote eh-tahj; Ger. *Oberstock*—pron. oh-berr-stokk.

Story Rod, in Joinery or Carpentry. A marked or graduated rod used to set or mark off the heights of the several steps of a stair. Syn. Fr. *Perche d'étage*—pron. pairrh dayt-ahj; Ger. *Treppenmass*—i.e. step measure, or *Treppentrittmass*.

Stove, in Ironmongery. A closed receptacle of cast iron in which fuel is burned to warm a room in place of an open grate. The burning fuel is wholly surrounded by or enclosed within the iron case, which

may be of varied form and more or less ornamented, and lies upon a grating at the lower part through which the air passes to maintain the combustion. The case is continued below this to admit of a space for a sliding iron drawer, which acts as a cinder and ashpans, and which can be removed at pleasure. The smoke and other products of combustion are led off by a tube or pipe opening into the interior of the case at or near its upper part, and thence conducted to the interior of the ordinary chimney of the room if there be one, or otherwise led off to the open air by a hole made in the wall. The fuel is supplied to the case or stove by an aperture made at one side, and closed or opened by a hinged and latched door. *Der.* Our word is from the Old English *stofa*, or from the Latin *stuba*, an enclosed space for burning fuel. Syn. Fr. *Poêle*—pron. poh-ail; Ger. *Ofen* (our oven comes from this) or *Stubenofen*—literally “a room- (*Stube*) or chamber-stove”—pron. stooch-benn-oh-fenn. A “stove-grate” is a combination of the closed stove and ordinary open grate, so as to secure the economy of fuel consumption of the stove with the open cheerfulness of the fire-grate. A French equivalent is *Poêle à grille*—pron. poh-ail ah greel (more generally gree, the *l* being dropped); *grille* is a grate, also a gridiron, both being provided with parallel bars or grating. Our word grill (cooking) comes from this. A German equivalent is *Ofenfeuerrost* or *Ofenrost*; also *Stubenofenrost*. Syn. Fr. for a German or Russian stove—that is, one the ironwork of which is covered with glazed tiles—*Poêle en poterie*—pron. poh-ail ahn poh-te-ree; also *Poêle de fayence*—pron. fay-ahnce.

Straight, in Construction. A term used to indicate that one part is in its right relation to another, or placed at the right angle. It is used sometimes as synonymous with “square,” or with another technical phrase “set fair,” or set properly, in a workmanlike manner. *Der.* Our word is from the Old English *streht*, and this from *streccan*, to stretch or to give extension to. In the ordinary acceptance of the word it means direct, or the shortest distance between two points, as between two walls, and in the sense of its synonym square we have referred to, a piece straight—that is, square to the line of walls or straight across—will be shorter than if set at an angle oblique to them. Syn. Fr. for “straight,” *Droit*—pron. drwah; Ger. *Gerade*—pron. geh-rah-deh; also *Enge*—pron. eng-eh; also *gleich*—pron. glych. Syn. Fr. for “to straighten,” *Decamber*—i.e. to unbend or uncurve. This is a restricted meaning of the term. In a technical sense a piece may not be curved or bent, and yet may not be straight or square or direct. Another term is more technically correct, *Rendre droit*—pron.

rahn-derr drwah; also *Serrer*—pron. serr-eh; also *Géner*—pron. jhay-nay; Ger. *Gerade machen*—pron. geh-rah-deh mach-en. Syn. Fr. for "straightness," *Étroit* (narrow)—pron. eh-trwah—i.e. the distance between the two ends or supporting points of a piece of timber set straight will be, so to say, narrower than when the piece is not set straight or square; also *Serré*—pron. serr-eh, or *l'Etat d'une pièce qui est droite*—pron. lay-tah duehn pee-ace key eh drwaht; also *Droiture*—pron. drwah-tuuh; Ger. *Geradheit*—pron. geh-rah-d-hite; also *Engheit*. Syn. Fr. for "straightening," *Réserrer*—pron. ray-serr-eh; also *Rédresser*—pron. ray-dress-eh; also *Régérer*—pron. ray-jhay-neh; Ger. *Geradeschlagen*—pron. geh-rah-deh -shlah -genn—i.e. to put straight by strokes or blows, as in the case of straightening a piece or rod of iron which has got bent or curved (*schlagen*); also *Geradstellen* or *Geradlegen* (*legen*, to lay down or place)—pron. geh -rah -deh -lay-genn; also *Geradesetzen* (to seat or give a place to)—pron. geh-rah-deh-zett-senn. Syn. Fr. for "set (straight) in line," *Aligné*—pron. ah-leen-eh, or *Aligné avec l'équerre* (straight-edge, which see); also *Aligné au cordeau* (*corde*, cord line, string)—pron. kor-r-doh; Ger. *Gerade Linie*—pron. geh-rah-deh leen-yeh. To test the straightness of a piece or part of construction, as a beam or wall, by looking along it—test of the eye, which by long practice gives most accurate indications. Syn. Fr. *Bornoyer*—i.e. to look with one eye, as one generally does in the operation of testing the straightness of a piece, or whether two points (which may be indicated by stakes stuck in the ground) are in a line, *Bornoyer l'alignement* (lining)—pron. bohr-nwy-yea lal-leeng-mahn; also *l'Epreuve* (proof or test) *de droiture*—pron. lay-preuve deh drwah-tuuh; Ger. *die Geradheit mit einem Auge* (an or one eye) *probieren* (to test or prove)—pron. dee geh-rah-d-hite proh-beer-enn; also *Absehen* or *Prüfen*—pron. ahh-see-henn, pruef-enn.

Straight-edge, in Construction. A long and narrow piece of thin wood with its surfaces perfectly flat, its edges square to these, and its sides parallel to one another. It is used for a wide variety of purposes: to draw straight lines connecting two points, to ascertain if the surfaces of pieces, such as stones in a wall, etc., are in a line with each other, or flush; or if a part, such as a wall or a beam, be level by laying one edge of the straight-edge along the wall or beam, and placing the "spirit level" (which see) at or about the centre of the edge. Syn. Fr. *Equerre*—pron. ehk-kwair; also *Calibr.*—pron. kah-lee-berr; Ger. *Streichholz*; also *Richtschneitholz*—pron. richt-shite-hollts.

Strain, in Materials. The term which indicates the pressure, burden, or stress laid

upon building materials, as stone, timber, and iron, which tests their strength. *Der.* Our word comes from the French *étreindre*, or from the Latin *stringere*, to draw or stretch out with force—to subject a body to the highest degree of force tending to rupture or break it. A term often used as synonymous is "stress." Syn. Fr. for "strain," synonymous with "stress," *Effort*—pron. eff-forr, or *Fatigue*—pron. fah-teeg; also *le Poids* (weight or pressure)—pron. leu pwah, or *Effort violent*—pron. eff-forr vee-oh-lahn; also *Tension*—pron. tahn-see-on; Ger. *Aus-* or *Anstrengung*—pron. owss- or ann-streng-oong; also *der Stamm* or *die Gewalt*—pron. geh-vallt; also *der Zug*—pron. tsoog—i.e. drawing out, or draught, or pull. Syn. Fr. for proof of strain or working stress of materials, *l'Epreuve des matériaux*—pron. lay-proove-mahn day mah-tair-ce-oh; Ger. *Probe von Materialien*; also *Anstrebung*—pron. ann-stray-boong (from *streben*, to strive, to struggle against, to resist)—the proof of resistance. For "compressible or compressive strain or a crushing force," or the weight, pressure, strain, or stress which tends to squeeze or crush the constituent particles or fibres of a material, and by excess of crushing, tending to distort the body or break up or rupture its parts: Syn. Fr. *Force tendante à compresser* (compress) *et écraser* (to crush) *les parts des matériaux*—pron. forss tahn-dahn ah kohm-press-eh eh eh-krah-zeh lay pah; Ger. *der Druck der Materialien Theile*—i.e. pressure of the parts of materials (from *drücken*, to press or squeeze)—pron. druek-enn. Syn. Fr. for "tensile strain" or force tending to pull asunder by elongating the fibres of materials—also called "tension" or tearing strain, *Force tendante à allonger* (to lengthen or extend) *et déchirer les fibres des matériaux*—pron. forss tahn-dahn ah all-onn-jay eh day-shee-ray lay feeb-err day mah-tair-ee-oh; Ger. *die Fiber von Materialien verlängern und reißen*—pron. dee fee-berr fon mah-tair-ree-ah-le-en ferr-leng-ern oond rise-senn. "Transverse" or "cross strain," generally called the "breaking strain," is when the strain tends to bend or deflect and break the material. When a beam, for example, is laid across an opening and supported at both ends, and is subjected to a weight or mass, either resting on its centre or spread over the whole surface, the tendency of the weight is to bend the beam downwards, and, if great enough, to tear asunder the fibres or break the beam. In this case the lower side fibres are in a state of tension, or are submitted to a tensile force; the upper ones to a compressible strain, or force of compression. Syn. Fr. *Force tendante à fléchir une poutre et à le rompre*, a pressure tending to bend a beam and to break it—pron. forss tang-dangt

ah flay-sheer oohn pooh-terr eh ah leuh rohm-perr; Ger. *Biegungskraft pflegend einen Balken zu zerbrechen*—i.e. bending force (from *biegen*, to bend, to curve downwards, to deflect), tendency of a beam to break.

Straining Cill or Sill, in Carpentry. A piece of timber of rectangular section, placed horizontally on the upper side or surface of the tie-beam in a queen-post truss or roof, and butting at each end against the inner faces of feet of queen posts. Its office is to resist the side or lateral strain or pressure exerted by the queen posts. Syn. Fr. *Entrait d'une toiture* or *d'un tirant*—pron. ahn-tray duehn twah-tuuh, teer-ahn; also *Poutre transversale d'une toiture*; Ger. *Spannbalken*; also *Dachspannbalken*.

Strap, in Carpentry. A piece of flat iron bar bent so as to embrace a beam at a jointed or scarfed part, to secure the two together. The strap may be made in one piece, and having an internal form to fit the outside of beam when passed over tightly; or it may be made open at one of the narrowest ends, each end being furnished with small ears or snugs provided with bolt-holes. The strap is then made to embrace the beam end tightly by screwing the ends hard up by a screw-bolt passing through the bolt-holes in the ears. Straps are also made flat and of different forms, so as when laid flat on the outer face of parts of a framing, such as a king-post end or the end of a strut or brace, it will unite the two when bolts are passed through the strap and the king post and strut, and this screwed hard up by a nut at back. Der. The word strap comes from the Old English *stropp*, a long, narrow, flat piece of leather. Syn. Fr. for "iron strap," in carpentry, *Estrope en fer en charpente*—pron. ess-trope ahn fairr ahn sharr-pahnt; Ger. *Eiserne Strippe für Zimmerwerk*—pron. ize-err-neh strop-peh fuer tsim-merr-vairrk.

Straw Barn, in Farm Architecture. The apartment in which straw is kept or stored up. In the Scotch system of farming arrangement the straw barn is in close connection with the threshing machine room or barn proper, the straw being passed at once from the threshing machine, which is a fixture in the barn, to the straw barn. Syn. Fr. *Paillier*—pron. pah-eel-yea; Ger. *Strohschuppen*—i.e. straw shed. Our word shippoon comes from *Schuppen*.

Strength, in Materials. A phrase used to indicate their "behaviour," to use another technical phrase, under pressure or strains thrown or put on them when under experiment or when *in situ* in structures. The phrase otherwise means the ability of materials to resist those strains or pressures, and by consequence the relative constructive value of different materials for different classes of work, or the comparative value

of different forms of bodies of the same materials. The term is therefore synonymous with value of materials from a constructive point of view; as also, to use another phrase, their powers of resistance to destructive strains. Der. The word strength is from the Old English *strengdh*, and this from *strenge*, strong. Syn. Fr. *Résistance des matériaux*—pron. ray-zees-tahnce day mah-tare-ee-oh; Ger. *Widerstand* (resistance) der *Materialen*—pron. vee-derr-stant dare mah-terr-ee-ahl-en. Syn. Fr. for "resistance to compression," or "strength to resist compression" or "compressible strains," *Résistance à compression*—pron. ray-zees-tahnce ah comm-press-yon; also *Pouvoir à résister la force compressible*—pron. pooh-vwahr ah ray-zeess-tay lah force comm-press-eel; Ger. *Widerstand gegen den Druck*—pron. vee-derr-stant gay-gen dane droohk; also *Stärke der Kraft dem Druck zu widerstehen*—pron. stairr-keh dare kraht fonn droohk too vee-derr-stay-enn. Syn. Fr. for "resistance to a force of tension," *Résistance à force de tension*—pron. ray-zees-tahnce ah force deh tahn-see-onn; for "resistance to extension," *Résistance de traction*—pron. ray-zees-tahnce deh trahk-see-on; Ger. *Widerstand gegen Zugfestigkeit*—pron. vee-derr-stant fonn tsoog-fess-tich-kite. Syn. Fr. for "resistance to a bending strain, deflection, or flexion," an equivalent expression for "resistance to cross or transverse strain" (see Strains), *Résistance de flexion*—pron. ray-zees-tahnce deh flek-see-on; also *Résistance de force tendante à fléchir et à rompre*; Ger. *Widerstand gegen Biegung* (binding)—pron. vee-derr-stahnd gay-gen bee-goong. Syn. Fr. for "absolute resistance of materials," *Résistance absolue des matériaux*—pron. ray-zees-tahnce ahbb-so-lue day mah-tare-ee-oh; Ger. *der absolute Widerstand der Materialien*—pron. dare ahb-so-looh-teh vee-derr-stant fonn mah-tair-ee-ahl-enn.

Strengthen, in Construction. A term frequently used, indicating different work done to make parts stronger which have been originally put up too weak to resist pressures or strains, or which have become weak through decay or accident. Syn. Fr. for "to strengthen," *Renforcer*—pron. rahn-forsch-eh; also *Affermir* or *Fortifier*—pron. ah-ferr-meer, forr-tee-fee-eh; Ger. *Stärken*; also *Befestigen*. Syn. Fr. for "to strengthen a building or wall," *Enforcer un bâtiment ou un mur*—pron. ang-force-er oohn bah-tee-mahn ooh oohn muuhr; Ger. *eine Mauer, ein Gebäude stärken* (or *bauen*)—pron. i-neh mow-err, ine geh-boy-deh stairr-kenör bow-enn. Syn. Fr. for "strengthening of a floor," *Charge de plancher*—pron. shahrj deh plahn-shay; Ger. *Verstärkung* (*Festigung*) *des Fussbodens*—pron. ferr-stairr-koong (fess-tig-oong) dess foorce-boh-denns. Syn. Fr. for "strengthening process," *Renfort*—pron.

rahn-forr; Ger. *Verstärkungsstück* — pron. ferr-stairr-koongs-stuek.

Stress. See Strain.

Stretcher, in *Bricklaying and Masonry*. Bricks and stones which are laid longitudinally, or in the direction of their length, along the line of wall, or at right angles to its breadth or thickness, as also to the bricks or stones which are placed transversely to the walls, and which are called "headers" (which see). *Der.* Our word "stretch" comes from the Old English *streccan*, to extend or pull out. Syn. Fr. for "stretcher brick, stone," *Brique, pierre à traversière*—pron. breek, pee-air ah trah-vairrs-yairr; Ger. *Streckziegel* or *-stein*—pron. strekk-tsee-gell (stine); also *Spannenziegel* or *-stein*. Syn. Fr. for "stretching course," *Assise de parpaing*—pron. ah-seeze deh pahr-paeng; Ger. *Längestrecken*—pron. leng-eh-strekk-en; or *Streckenlänge*—pron. leng-eh-strekk-en.

Strike, in *Construction*. A term often used to indicate the taking down of certain parts, such as striking—taking down—the centres of an arch, or the timber framework so called, erected to support the arch stones or bricks when being placed *in situ*. *Der.* From the Old English *strican*, to give a touch or blow with some force. Syn. Fr. for "to strike," *Frapper*—pron. frahp-pay; Ger. *Streichen*—pron. stryeh-enn. Syn. Fr. for "striking," *Frappant*—pron. frah-pahn; Ger. *Streichen*.

Striking the Centres, in *Carpentry*. For this see above. Syn. Fr. *Décintrement*—pron. day-saihn-terr-mahn; also *Décintrage*—pron. day-saiht-trahj; Ger. *Wegnehmen der Bogenstützung*—pron. vaig-nay-menn der boh-genn stuetts-oong; also *des Bogengerüstes*—pron. gay-ruess-tess.

Striker, in *Building Tools and Appliances*. A synonym for "straight-edge" (which see). This name is given to it as being derived from the phrase "striking a line," commonly used by some in place of "drawing a line"; and in technical phraseology the term struck is sometimes employed to indicate that a piece of work is finished, and a line struck or distance measured off is synonymous with one drawn and set out. The term is sometimes used to indicate a small straight-edged piece of wood or steel used to scrape or strike off superfluous material from a surface to level it or make it flush with the surface of a framing or receptacle, as one strikes a bushel of grain to level its top and make it exactly full; or as a moulder of metal articles strikes off the superfluous sand, making it level with the edges of the moulding-box. *Der.* From the above it would appear as if the term striker were a corruption of *streaker*, which is derived from the Old English *stricca*, a line or stroke, or more correctly a streak, which is a line generally of a different colour or

material from the general surface on which it is seen; and this from *strican*, to go. Syn. Fr. for "striker," as synonymous with "straight-edge" (which also see), *Règle*—pron. ray-gell; Ger. *Abstreichlineal*—pron. ahp-stryeh-lee-nay-ahl. Syn. Fr. for "striker," in the sense of an appliance to scrape or streak off, synonymous with what is called a strickle, *Racloire*—pron. rah-klwahr; a strickler, *Racleur* or *Racloir*—pron. rah-kleuhr, rah-klwahr, both words meaning a scraper; also *Règle à raser*—pron. ray-gel ah rah-zay (i.e. a rule to shave off); Ger. *Richtscheit*—pron. richt-shite.

String-board, in *Joinery*. The board or boarding which is placed at the side of the well-hole of a staircase, terminating the ends or housings of the steps, treads, and risers. The upper edge is moulded. The string-board has the same relation to the steps of a stair as the skirting-board of a room has to the floor. A more accurate term for this part is string-piece or notch-board, the ends of the steps being notched into its face. The term is also applied to the panelled boarding in the inside or open or exposed part of a staircase, the ends of the steps being finished off by pieces of flat wood curved at the edges, and the boarding being laid out in panels chiefly triangular and rhomboidal in form. The term string-board is more strictly applicable to the arrangement here described than to the notch-board or string-piece as above alluded to. Syn. Fr. for "string-board" or "notch-board," *Limon*—pron. lee-mohn; Ger. *Treppenträger* ("step bearer," more applicable to the notch-board or string-piece above noted)—pron. trepp-enn-tray-gerr. For a string-board in the last sense described the synonym is *Treppenbrett*, "step board." A "curved string-board" is that part of the board which sweeps from the lower set or flight of steps to meet the second or upper flight, which run in a reverse direction; and as the string-board sweeps round in a curve to change its direction, it also rises to meet the difference in level of the two flights. Syn. Fr. *Limon courbé rampant*—pron. leem-mon koohr-bay rahm-pahn; Ger. *Treppenbrettkrümmung* (*Krümmung*, a curve), or *Treppenbrettwendung* (*wendung*, turning, winding round)—pron. trep-penn-brett-kruehm-oong or vend-oong; also *Treppenbrettkrümmung* or *wendung überhand* or *überstössig*—that is, step-board curved and rampant, rising or sloping as it curves or winds—pron. ueh-ber-hant, ueh-berr-stess-ig.

String-course, in *Masonry and Brickwork*. A horizontal member in a wall, consisting of a single course or band of stone of greater or less depth, either plain or moulded on face. It projects slightly from face of wall, and is generally placed at heights corre-

sponding with the height of floors, thus marking off or indicating the position of floors or the stages of rise in the height of walls. In brick-built houses the string-courses are formed either of a single course of bricks projecting from the face of wall, or of two or more courses, each course projecting before the one below it. But in houses of a better class built of brick, the string-courses, as also the window and door dressings and the base course, are of stone. Syn. Fr. for "string-course of stone or brick," *Cordon de pierre or de brique*—pron. kore-don deh pee-airr, deh breek; Ger. *Steinkranzleiste*—pron. stine-krants-lice-teh; also *Steinbandschicht*—pron. stine-bant-sheecht.

String-piece, in *Carpentry*. The horizontal piece of timber which connects together the heads of piles, or of timbers placed vertically. The synonym for the term is "capping," Syn. Fr. for the "string-piece of piling work," *Longrine d'un grillage*—pron. long-reen deuhn gree-yahj; for capping generally, *Longueron*—pron. lonn-guer-on; also *Poutrelle*—pron. pooh-trell, or *Sommier*—pron. somm-ee-eh; also *Porteur de la voie*—pron. porr-tuurr deh lah vwah; Ger. *Langbalken vom Pfahlwerk*—pron. lang-bahll-kenn fom pfahl-vairrk; for capping or string-piece generally, *Hauptschwelle*—i.e. head sill; also *Langhauptschwelle* or *Langhauptbalken*—pron. lang-howpt-shwell-eh or -howpt-bahll-kenn. Our word string is identical with the Old English word, denoting a small or thin cord or band.

Stringers, in *Joinery* or *Carpentry*. A synonym for string-board (which see).

Strip, in *Architecture* and *Construction*. A narrow member, as a fillet, running along longitudinally or placed vertically. In construction, as in joinery, the term is applied to narrow and thin pieces of wood used for various purposes, also to narrow bands of paint or paper, etc. *Der*. Our word is from the German *streifen*, or from the Dutch or Low German *strupen*, a long, narrow, and thin piece of any body or substance. Syn. Fr. for strip generally, *Bande*—pron. bahnd; Ger. *Streifen*—pron. strife-enn. Syn. Fr. for "strip as an architectural member," *Lisière*—pron. leeze-ee-yairr; also *Jambette*—pron. jahm-bett; Ger. *Tragband*—pron. trahg-bant; also *Stützband*—pron. stuets-bant. Syn. Fr. for "strip of wood," *Bande de bois*—pron. bahnd deh bwah; Ger. *Holzband*—pron. holhts-bahnd. Syn. Fr. for "strip of paint," *Bande de couleur*—pron. bahnd deh koohl-euhr; also *Peintre*—pron. paihn-terr; or *Fard*—pron. fahrd; Ger. *Farbeband*—pron. fahr-beh-bant. Syn. Fr. for "covering strip" to conceal joints, *Bande couverture*—pron. bahnd kooh-vairr-tuehr; Ger. *Bandbedeckung*—pron. bahnd-beh-dekk-oong.

Stripe, in *Construction*. A term in some departments of work synonymous with

strip. But in others it has a precise and definite application, as to "stripe off" the plaster, the paper, the boarding, although the term strip off is used indifferently with stripe—which last is more in keeping with the derivation of the word, which involves a violent or a sudden action of some force, and is hence the more correct term for such operations as are here named. *Der*. The term strip comes from the Old English *strypan*, to pull off or tear off violently, or to take suddenly from. Syn. Fr. for "to stripe," *Rayer*—pron. ray-yea; also *Marquer d'un coup*—pron. marr-kay deuhn koo; Ger. *Streifig machen*—pron. strife-ich mah-chen; also *Schlagen*—pron. shlah-genn. Syn. Fr. for "stripped," *Rayé*—pron. ray-eh; Ger. *Gestreift*—pron. geh-striht. Syn. Fr. for hard wood, or "home" or "round" timber stripped of its bark, *Démusclé*—pron. day-mooss-klay, or *Dépélé*—pron. day-pale-eh; also *Bois pelard*—pron. bwah peh-lahr; Ger. *gestreiftes Rundholz*—pron. geh-striht-ess rond-holhts.

Strong, in *Construction*. A term used chiefly in combination with other words, as "strong room" of a bank, strong wall, etc. *Der*. Our word comes from the Old English *strang*, or the German *strengh*, denoting great material or physical powers of resistance. Syn. Fr. for strong, *Fort*—pron. fohr; Ger. *Stark*. Syn. Fr. for "strong room" in which valuables are kept, *Chambre à cabinet fort*—pron. shahm-berr ah kah-bee-nay fohr; Ger. *Starkzimmer* or *-kammer*—pron. tsim-merr, kah-merr. Syn. Fr. for "strong wall," *Mur fort*—pron. muurr fort; Ger. *starke Mauer*. Syn. Fr. for "strong framing or framework," *Chassis fort*—pron. shah-see fohr; Ger. *starkes Gestell*—pron. geh-stell.

Structure. A term used to indicate any piece of construction of separate parts framed or built or put or joined together. *Der*. From the Latin *structura*, from *strutum*, and this from *struere*, to join, to lay together. A very common synonym is building; another is erection, though the latter term is more used in connection with mechanical or engineering work. Syn. Fr. *Structure*—pron. strook-tuurr; Ger. *Struktur*—pron. strook-toor, or *Bau*—pron. bough (ou as in "now"); also *Bauart*—pron. bough-errt, or *Ordnung*—pron. orrdd-noong. Syn. Fr. for "wood structure," *Structure en bois*—pron. ahn bwah; Ger. *Holzstruktur*. Syn. Fr. for "stone structure," *Structure en pierres*; Ger. *Steinstruktur*. Syn. Fr. for "brick structure," *Structure en briques*—pron. breek; Ger. *Ziegelsteinstruktur*—pron. tsee-gell-stine. Syn. Fr. for "iron structure," *Structure de fer*—pron. deh fairr; Ger. *Eisenstruktur*—pron. ize-enn. Syn. Fr. for "structure in wood framing," *Structure assemblage des bois*—pron. ahs-sahm-blahj day bwah; Ger. *Holzrahmenverband*

Structur — pron. holts-tsahn-ferr-bahnd. Syn. Fr. for a "framed and jointed structure," *Structure assemblée et jointée* — pron. strook-tuehr ah-samm-blai eh jwahn-tay; Ger. *Gestell und Gewindestructur* — pron. geh-veenn-deh.

Struts, in Carpentry. Inclined pieces of timber, as in a roof, which are placed to support, strengthen, stay, or brace up other parts. In a roof their office is to support the rafters at a point near the centre of their length, butting upon the under side of these at their upper end, and themselves butting at their lower end on the sides of the vertical pieces called the king or queen posts. A synonym for strut is brace; sometimes "stay" is used, though this is employed chiefly in connection with framings other than those of roofs. *Der.* The word is nearly identical with the Danish *strutte*, from which it directly comes: to strut, to walk with head vainly erect. Syn. Fr. for "strut of a rafter," *Jambe de force* — pron. jahmb deh forss; Ger. *Kniestück* — pron. knee-stuek. Syn. Fr. for "strut or brace," *Poteau* or *Poutre incliné* — pron. poh-toe, poh-terr ahn-klee-nay; also *Lien en contrefiche*, or *Lambourde* — pron. lee-ain ahn con-terr-feesh, lahm-boord; also *Pointal*, or *Etançon* — pron. pwahn-tal, eh-tahn-son; Ger. *Strebeband* — pron. stray-beh-bahnd, or *Streckbalken*; also *Dachtragepfosten*, or *Querband* — pron. daach-trah-geh-pfoss-tenn, quairr-bant; also *Spannband*, or *Springstrebe*. Syn. Fr. for strut acting as a shore or stay, keeping up or inclined to a vertical wall, *Souillard* — pron. sooh-l-yarr; also *Contrefiche*, or *Etançon*; Ger. *Fussband* — pron. foorce-bant; also *Stützbalken* — pron. stuettts-bahl-kenn.

Stucco, in Plastering. A finer kind of plaster or a plaster of Paris or gypsum used for finishing off the work with; also used to form mouldings and to cast ornaments from. Syn. Fr. *Stuc* — pron. stuek; also *Enduit*, coat of plastering (from *enduire* — pron. ahn-dweerr, to lay over with a substance, to spread over), or *Enduit du plâtre* — pron. ahn-dwee duuh plah-terr; also *Marbre factice* — i.e. factitious or imitation marble — pron. mahr-berr fack-teece; Ger. *Stuck* — pron. stook, or *Gypsstuck* — pron. gipps-stook — i.e. gypsum (pron. jipsum) plaster; also *Gypsmörtel* — pron. moerr-tel — i.e. gypsum mortar, or *Gypsmarmor* — pron. mahr-mohr — i.e. gypsum marble. *Der.* Our word gypsum is borrowed directly from the Latin *gypsum*, and this from the Greek *gypsos*, a mineral composed of 79 parts of sulphate of lime and 21 of water or moisture. Plaster of Paris is the calcined gypsum found so abundantly in the quarries and catacombs or subterranean excavations of that city. Syn. Fr. for "to stucco," *Couvrir avec plâtre* — pron. koohve-reer ah-veck plah-

terr, or simply *Couvrir*; also *Enduit en plâtre*; Ger. *mit Gypsstuck bekleiden*, to clothe with plaster — pron. beh-klide-en. Syn. Fr. for "stucco work," *Ouvrage en plâtre* or *en stuc* — pron. oov-rahj ahn plah-terr, stuek; Ger. *Gypsstuckaturarbeit* — pron. -ah-toohr-ahr-bite; also *Gypsstuckwerk*. Syn. Fr. for "stucco ornaments," *Plâtres* — pron. plah-terr, or *Patte* — pron. patt; Ger. *Gypsstuckzierde* or *-verzierung* — pron. tseer-deh, ferr-tseer-oong.

Stuck on, in Joinery. When the mouldings in panel work are worked on the style of the door, and not on the panel, they are said to be stuck on. The term is clearly a corruption of "struck on."

Studs, in Carpentry. Pieces of timber, rectangular in section, set vertically in framing. A synonym is "uprights" or "posts," or more precisely "quarters." Stud work is what is otherwise and more frequently called bricknogging, and is used to form partitions of rooms. The studs or quarters are placed vertically at intervals of about three feet apart, and are framed into the "head" timber at upper end, and into the cill or sill at foot. Between the studs, placed at two-feet intervals, pieces of wood of the same breadth as the depth of the studs are secured, to lie horizontally. These horizontal pieces or ties are called "nogging pieces," and form, with the vertical studs or quarters, a series of compartments about three feet long and two feet deep, which are filled up with bricks laid as stretchers, which thus makes the depth of stud or width of the nogging pieces, on which the first course of bricks in each compartment lie, equal to the breadth of a brick, or 4½ inches. Syn. Fr. for "stud work," *Colombage en briques* — pron. koll-aum-bahj — literally "pigeon-hole brickwork," the compartments having a resemblance to pigeon-holes (*colonne à pigeon*, or *layette*, or *serre-à-papier*); also *Pose de briques entre les panneaux* (panels), or *Compartiments d'un mur* — pron. poze day breek ahn-terr lay pann-oh, or komm-pahr-tee-mahn duehn muuhr; Ger. *Ziegelmauer mit Fächern* (*Fach*, a compartment) — pron. tsee-gell-mow-err mit feh-ern; also *Ziegelmauer zwischen Ständern* (studs) und *Riegeln* (rails or horizontal pieces) — i.e. a brick wall between studs and horizontal pieces — pron. tsee-gell-mow-err tsvish-enn sten-derr oont ree-geln.

Stuff, in Joinery. The planks, boards, and battens are so called. *Der.* Our word comes from the Latin *stuppa*, oakum, or the refuse fibres of hemp or flax. It is now come to be a designation of any substance or material used or capable of being manufactured. Syn. Fr. *Étoffe* — pron. eh-toff; Ger. *Stoff*.

Style, in Architecture. A term used to indicate the different classes or kinds of

architecture, according to the country or district in which they originated—as the Egyptian, Etruscan, Roman, and Grecian styles or classes. The term is also used to indicate different sub-classes, so to call them, of one great division or class. Thus the Grecian style is subdivided into the Doric, Ionic, and Corinthian styles—to which, however, the term “order” is applied generally. *Der.* Our word is from the Latin *stylus*, and this from the Greek *stulos*, a pillar (also a pen or a sharp-pointed implement used as such to form the letters on a wax-covered surface). Hence the application of the word architecturally, the pillar or column being the chief feature of Grecian architecture—all other features being subordinated to this. *Syn. Fr.* for style, *Style*—pron. steel; *Ger. Styl*—pron. steel. *Syn. Fr.* for “purity of style,” *Pureté de style*—pron. puerr-tay deh steel; *Ger. Stylreinheit*—pron. steel-rine-hite; also *Keuschheit des Stils*—pron. koys-hite dess steiss, or *Reinheit des Stiles*.

Style, in Joinery. See *Stile*.

Stylobate, in Architecture. The lowest member in a Grecian building—the blocks of stone forming the flat surface on which the pillars or columns rested. *Syn. Fr.* The same word as ours in spelling—pron. steel-oh-baht; also *Soubassement*—pron. sooh-bahss-mahn; *Ger. Stylobat*—pron. steel-oh-batt; also *Säulenstuhl*, “pillar or column stool”—pron. zoy-lenn-stool, or *Säulenfußgestellstein*—i.e. “pillar foot carriage stone.”

Summer, in Carpentry. An old term now pretty generally superseded by the term *Brestsummer*—a beam, as a lintel beam, thrown across a large void or open space in a wall—and the office of which is to support the mass of brickwork or masonry above. *Syn. Fr. Plataband*—pron. plaht-band; also *Linteau* or *Manteau*—pron. lai-n-toh, mahn-toh; also *Entretoise* or *Traverse supérieure*—pron. ahn-terr-twahze, trah-vairss sue-pairr-ee-euhr; *Ger. querüber Balken*—pron. quairr-ueb-err bahl-kenn. For the “summer plates or sleepers”—that is, the small pieces of wood placed on the wall on which the ends of the summer beam rest, the plates or sleepers tending to equalise the pressure on the walls and afford a steady bearing: *Syn. Fr. Sommier* (sohm-yea) *de linteau, d'entretoise*, etc.; also *Sous-poutre*, “under beam”—pron. sooh pooh-terr; *Ger. querüber Balkenträger*—pron. -tray-gerr; also *querüber Balkenstütze*—pron. -stuet-seeh.

Summer-tree, in Carpentry. A beam which carries the ends of the joists in a double-framed floor, and to which the girder is framed. The summer-tree is provided with a series of mortise-holes in its inner side, corresponding in position and distance with the joists of the floor.

Sunk, in Carpentry and Joinery. A term

used to indicate that a part may become depressed or lowered, or may give way, in consequence of the part which supports itself giving way or sinking. In this sense a part is said to be “sunk” when its proper level is lowered, for which the French equivalent, in the case of carpentry work, is *Affaisé*—pron. ah-faze-eh; *Ger. Gesunken*—pron. geh-zoon-ken. The term “sunk” is also used to indicate that one part is purposely made to be below the level of the surface of parts surrounding it, such as a sunk panel, a sunk groove, or, say, “sunk shelves,” which are shelves used in kitchens or sculleries for holding plates, and which are provided with grooves running parallel to and at a short distance from the outer edge of the shelf. This groove prevents the plates from slipping off the shelves when they are reared up flat or on edge, and vertically on the shelves. The term “sunk” is sometimes used as equivalent to being forced or driven into a sunk place, as a mortise-hole. The *Syn. Fr.* for this is *Enfoncée*—pron. ahn-fonn-say; *Ger. Unterschalt*—pron. oohn-terr-shalt.

Superficial Measure, in Construction. The measurement of surfaces—that is, having two dimensions only, namely, length and breadth, as distinguished from cubic measure, which is that of solids, having three dimensions of length, breadth, and thickness. *Der.* The term superficial is from the Latin *superficies*—compounded of *super*, above, and *facies*, figure, form, or make—the surface. *Syn. Fr.* for “superficial measure,” *Mesure de superficie*—pron. may-zuehr deh sooh-pairr-fee-see; *Ger. Flächenmass*—pron. flech-en-mahss (*flach*, flat, plain, level).

Superstructure, in Construction. That part of a building or erection placed and seen above the foundation level; the upper part of any construction. *Syn. Fr.* The same word as ours—pron. sueh-pairr-struektuehr; also *Surélévation*—pron. suehr-eh-lay-vah-see-on; *Ger. Oberbau*—pron. oh-berr-bow, or *Ueberbau*—pron. ueh-berr-bow.

Support, in Construction. A part which bears up, carries or props up another part of a structure, as a post, a pillar, a shoring or inclined beam. *Der.* The word is from the Latin *supportare*, to sustain, to bear up (from *sub*, under, and *portare*, to carry). *Syn. Fr.* for “to support,” *Supporter*—pron. sueh-porr-tay; also *Soutenir*—literally “to hold under”—pron. sooh-ten-neerr, or *Entretenir*—pron. ahn-treu-ten-neerr; *Ger. Stützen*—pron. stuet-ten; also *Unterstützen* or *Unterhalten*—pron. oohn-terr-stuet-ten, oohn-terr-hall-tenn. *Syn. Fr.* for “a support,” that which bears up or sustains, *Soutien*—pron. sooh-tee-ahn; also *Appui*—pron. ah-pwee; *Ger. Unterstützung*—pron. oohn-terr-stuet-sonng.

Syn. Fr. for "to support a wall" by shoring it up with inclined stays or struts, *Contrebouter*—pron. cohn-terr booh-tay. Syn. Fr. for "supporters," an architectural term synonymous with *Caryatides*, supporting columns in the form of female figures, *Caryatides*—pron. karr-ee-ah-teed; Ger. *Karyatiden*—pron. karr-i-ah-tee-denn. Syn. Fr. for "supporting beam," *Poutre* or *Solive passante*—pron. pooh-terr or soh-leeve pah-sahnt; Ger. *Tragebalken*—pron. tray-gerr-bahl-kenn.

Surbase, in Joinery. A synonymous term for the "dado" of a room, also for the "skirting board." Syn. Fr. *Corniche d'antebois*—pron. kohr-neesh dahn-te-bwah; Ger. *Karnies der Wandtafel*—pron. kahr-neece dare vant-tah-fell. Syn. Fr. for "surbased," *Antebois cornichée*—pron. kohr-neesh-eh; also *Surbaissé* or *Surbaissé*—pron. suehr-bah-eece-eh, suehr-bah-say.

Surface Bearing, in Construction. A term in frequent use to indicate the part of one body which carries another, and which forms the "seat" or resting-place of another part, such as that part of a wall on which the end of a beam rests, and by which it is supported or carried. To get a good bearing surface and one which distributes or spreads the pressure of the carried part, as the beam, over as wide a surface as possible of the part which carries, as the wall, is an important point in sound construction. Syn. Fr. for "bearing surface," *Surface* or *Superficie de fatigue*—pron. suehr-fahss or sueh-pair-fee-see deh fah-teeg; also *Surface* or *Superficie à usage*—pron. ah uez-uehr; Ger. *Tragefläche*—pron. trahg-eh-flech-eh.

Surveyor, in Building. The expert who takes out the "quantities" or makes a schedule of measurements of the various parts of a building is so called; sometimes a building surveyor, to distinguish him from a land surveyor. Syn. Fr. for "builder's surveyor," *Arpenteur*—pron. arr-pahn-teurr; also *Mesureur*—pron. mezz-uehr-uehr; Ger. *Abmesser* or *Baummesser*.

Swallow-tail Joint, in Joinery. Synonymous with dovetail joint, in which projecting pieces of the form of a dove or swallow tail, cut out on the edge of one piece, go into correspondingly shaped holes

sunk in the face of the other piece. Syn. Fr. *Crampon*—pron. krahm-pon; also *Embrasure*—pron. ahm-brah-zuuh; Ger. *Balkenband*. Syn. Fr. for "swallow-tail mortise, or hole to suit the swallow-tail," *Gueule*—pron. geuhl; Ger. *Scherloch*—pron. sherr-loch. Syn. Fr. for "swallow-tail joint" *Joint queue d'hirondelle*—pron. jwahnnt keuh deer-on-dell; Ger. *Schwalbenschwanzgelenk*—pron. shwall-benn-shvants-gay-lenk.

Sweep, in Joinery. A term used to indicate where two parts on different levels are joined by a curved part, as in the hand-railing of a staircase. Syn. Fr. *Rampo*—pron. rahmp; Ger. *Kreis*—pron. krice. Syn. Fr. for "sweeping saw" (this again being the synonym for bow saw for cutting curves), *Scie à chantourner*—pron. see ah shahn-toorr-nay; also *Scie à vider* or *Scie à échancrer*—pron. vee-day, eh-shahn-kray; Ger. *Rundsäge* (a round saw)—pron. roohnd-zay-geh.

Swell or Swelling, in Architecture. A synonym for entasis—that is, the curved outline given to the shaft of a column in Grecian architecture, the Grecian column not being tapered in a straight line from base to capital. Syn. Fr. *Renflement*—pron. rahn-fel-mahn; also *Tranche d'une colonne*—pron. trahnsh duehn kohl-onn; Ger. *Antasis*—pron. ann-tah-seese; also *Säulenschwellung*—pron. zoy-len-shvell-oong. In building construction the term swell is synonymous with "bulge," the Syn. Fr. for which is *Bouffetage*—pron. booh-fet-ahj or boohf-tahj; Ger. *Ausbauschung*—pron. owss-bow-shoong. Syn. Fr. for "bulged," *Renflé*—pron. rahn-flay; Ger. *Ausgebauscht*—pron. owss-geh-bowshht. Syn. Fr. for "bulging," *Bombage*—pron. bomm-bahj; Ger. *Bauchung*—pron. bowch-oong. Der. Our word swell is from the Old English *swellan*, to grow big, to increase.

Sycamore, in Timbers. One of our hardwood home-grown trees. Syn. Fr. *Sycamore*—pron. seek-oh-more; also *Montagnard*—pron. maun-tahg-nyarr, or *Erable blanc* (white maple)—pron. eh-rah-bell blahn; Ger. *Bergahorn* (*Ahorn*, maple)—pron. bearrg-ah-horn; also *Weissahorn* (white maple)—pron. vice-ah-horn.

T

T-Iron, in Roof Construction. The bars of iron the cross-section of which is in the form of the letter "T"—hence the name—which are used in iron roofs to form the parts corresponding to the "rafters" of a timber roof. Syn. Fr. *Fer en T*—pron. ferr ahn tay; Ger. *T-eisen*—pron. tay-ize-enn. T-iron bars are sometimes used double—that is, the flat parts back to back, the tails projecting equally on both sides—to

form struts or braces. Syn. Fr. *Fer en T double*, or *dos à dos*—pron. ferr ahn tee dooh-bell, doze ah doh; Ger. *Doppel T-eisen*—pron. dop-pell tay-ize-enn. This, however, is also a synonym for H-iron, or double-channel iron—as if two bars of T-iron were welded together at their tails.

T-square or Tee-square, in Building Drawing. The drawing implement or appliance by which lines are drawn at right

angles to the sides and ends of a drawing board, and lines parallel to these. The T-square consists of two parts—the “stock” or “head,” which is at right angles to, and secured by dovetail or other form of joint to the second part, the “blade” or “stem,” which is a flat ruler or straight-edge. The “blade” is fixed either at one side of the stock or head, or inserted into a slot made in the centre of the thickness of this. In either method of fixing the blade or stem to the stock or head, a rebate or recessed part is formed between the face of blade and face of head, so that the T-square can be moved or caused to slide along the edge of the drawing board without changing the position of the blade on the surface of the board. Syn. Fr. *Equerre en T*—pron. eh-kairr ahn tay; also *Equerre double*—pron. dooh-bell; Ger. *T-winkel*—pron. tay-vink-ell.

Table, in Architecture. The upper surface of a part projecting from and built into the wall, and which supports or carries another part, as a “corbel” part, of a “hammer beam,” etc. The term is generally used in conjunction with the object which it supports—as, for example, “corbel table.” Der. The word is from the Latin *tabula*. Syn. Fr. for “table,” *Table*—pron. tah-bell; Ger. *Tafel*—pron. tah-fell; also *Tisch*—pron. tish. Syn. Fr. for “a little table,” or table as an architectural feature, *Tablette*—pron. tah-blett; Ger. *Täfelchen*—pron. tah-fell-chen. Syn. Fr. for “to table,” in carpentry—that is, to put down plates, as wall-plates,” *Empâter*—pron. ahm-pah-tay; also *Emboîter*—pron. ahm-bwah-tay; Ger. *Verkommen*—pron. ferr-kahm-menn. Syn. Fr. for “tabling,” as of a beam, *Empâtement*—pron. ahm-paht-mahn; also *Emboîtement*—pron. ahm-bwaht-mahn.

Tablet, in Architecture. A small, flat-surfaced stone, generally rectangular in form, with the corners cut off by straight or curved lines, on which to carve or cut an inscription, as a date, a monogram, or coat of arms. Syn. Fr. *Table d'attente*—pron. tah-bell dah-tahnt; Ger. *Thürtafel*, “door table,” as the tablet is often placed above a door—pron. tuerr-tah-fell. If the tablet be not flush with the wall into which it is built, but projects from the surface of this, the tablet is called a “raised tablet.” Syn. Fr. *Table d'attente en saillie*—pron. sahl-ye; Ger. *erhabene Thürtafel*—pron. err-hah-benn-eh.

Tack, in Materials. A small nail with a flat head, used chiefly by cabinet makers in upholstery work. Der. Our word comes from the Danish *tak*, a sharp pointed little nail. Syn. Fr. *Pointe*—pron. pwahnt, or *Broquette*—pron. bro-kett; Ger. *Zwecknagel*—pron. tsvekk-nah-gell, or *Zwecke*—pron. tsvekk-eh.

Tackle, in Tools and Appliances. The ropes and pulleys connected with lifting

guys, shears, cranes, or hoisting gear are so called. Der. The word comes from the Danish *takel*, meaning the above. Syn. Fr. *Palan*—pron. pah-lahn; Ger. *Kloben*—pron. kloh-benn.

Tail, in Joinery. The projecting part or end of a beam or joint is so called. The tail of a tenon is the part projecting beyond the shoulder. Der. Our word is from the French *tail*, a cutting (from *tailler*, to cut). Syn. Fr. *Queue*—pron. keuh; Ger. *Schweif*.

Tail Trimmers, in Carpentry. Trimmer beams placed next a wall to receive and carry the ends of the joists of floor. Syn. Fr. *Blochets près d'un mur*—pron. bloh-shay pray duehn muehr; Ger. *Stickbalken nahe bei einer Mauer*—pron. stick-bahl-kenn nah-eh by ine-err mow-err. Syn. Fr. for “tailing” —that is, the hold which the inner end of a brick, which is left projecting from the end face of a wall, takes of the wall or the part built, *Scellé dans le mur*—pron. sell-eh dahn lay muehr. “Tailings” are left at end walls at points at which additions to the length of wall may be made at some future time, as in continuing a line of houses. The lower end of a slate is also called “tail.”

Taking Down, in Construction. A synonym for “pulling down” an old building or structure to make way for a new one or to clear a site, or “breaking down” timber work, etc. Syn. Fr. *Déposer*—pron. day-poh-zay; Ger. *Abnehmen* or *Abtragen*, or *Abbrechen*—pron. ahp-nay-men, ahp-trah-gen, ahh-brech-en. Syn. Fr. for “to take down,” *Déposer*—pron. day-poh-zay; “to take down a wall,” *Abatre un mur*—pron. ah-batt-err uehn muehr; Ger. *eine Mauer einreißen*—pron. ine-eh mow-err ine-rice-enn. Syn. Fr. for “to take off the edge or arris,” in joinery, *Rebattre*—pron. reh-batt-err; Ger. *Abschärfen*—pron. ahp-sherr-fen; also *Abecken*—pron. ahp-ekk-en. Syn. Fr. for “to take off a shaving,” *Détacher un bardeau*—pron. day-tahsh-eh uuhn bahrr-doh; Ger. *einen Span abnehmen*—pron. ine-en spahn ahp-nay-men. Syn. Fr. for “to take to pieces,” *Déconstruire*—pron. day-con-struweir; also *Démonter* or *Déjoindre*—pron. day-mon-teh, day-jhwahnd-err; Ger. *Auseinandernehmen*—pron. owss-ine-ahn-derr-nay-menn, or *legen*—pron. lay-genn. Syn. Fr. for “to take a sketch or plan of a building,” *Lever une esquisse, or un plan*—pron. levv-eh uehn ess-keee, uuhn plahn; Ger. *einen Riss nehmen*—pron. ine-en riss nay-menn.

Talon, in Mouldings. A synonym for the cymatium or cyma reversa or ogee. Syn. Fr. *Talon*—pron. tah-lon; also *Cymaise renversée*—pron. see-maize rahn-vairr-say; Ger. *Kehlstoß*—pron. kail-stoass.

Tamp or Tamping Bar, in Tools. A long iron bar, terminated at its lower end with a chisel-shaped steel edge. The tool

used to bore a hole in a block of stone while in its bed in the quarry, or a rock in foundation work, in which to place the charge of gunpowder or nitro-glycerine which is to blast, blow up, and shatter the stone for displacement. While one man holds the tamping bar and turns it round occasionally, or gives it a twist, another man strikes the head of the bar with a heavy hammer. Syn. Fr. *Bourroir*—pron. boorr-wahrr; Ger. *Stampfe*—pron. stahmp-feh. Syn. Fr. for "tamping"—that is, boring the hole with the tamp—*Bourrage de trou de pétard dans une roche ou pierre*—pron. booh-rajh deh trooh deh pay-tarr dahnz uehn rosh ooh pee-airr; Ger. *Ein Loch in einen Stein bohren*.

Tank, Rain-water, in Domestic Architecture. An excavation made in the soil, lined with brick set in hydraulic cement, or with brick covered with Roman or terra cotta; hence in some districts called a "terra cistern," or tank, in which rain-water is collected and stored up. Syn. Fr. for "tank," *Recevoir*—pron. reh-seh-vwahrr, or *Réservoir*—pron. ray-zair-vwahrr; also *Receveur*, or *Citerne*—pron. see-tairrn; also *Gardoir*—pron. garrd-wahr; Ger. *Wasserbehälter*—pron. vass-err-beh-hell-terr.

Tap, in Plumbers' and Gasfitters' Work. A synonym for "stopcock" or "cock" or "screw-tap." The appliance by which the flow of a liquid or gas through, and the exit from, a pipe or jet is stopped or arrested or lessened as desired, and *per contra*. Der. Our word is from the Old English *tappare*, to pierce a vessel so as to allow liquid in it to escape or flow out. Syn. Fr. *Robinet*—pron. roh-bee-nay; Ger. *Schliesshahn*—pron. shleece-hahn; also *Spund*—pron. spooind.

Tape, Measuring, in Tools and Appliances. A tape specially prepared so as to be waterproof, and in some cases by having wire woven in it prevented from stretching, and with distances of feet and inches marked on it and numbered or figured, by which lengths or measurements are taken. The measuring tape is generally wound up into the interior of a metal or leather case by means of an outside handle, and by this means preserved from injury, and made at the same time to occupy little space in the pocket; or when pulled out by hand and released therefrom, the tape is drawn in again or wound up by a spring. This last arrangement saves the use of and the trouble of working the old-fashioned handle appliance. Der. Our word tape comes from the Old English *tappe*, a narrow fillet of woven material. Syn. Fr. for "measuring tape," *Mesure en ruban*—pron. meh-zuehr ahn rueh-bahn; also *Cordeau*—pron. korr-doh; Ger. *Messband*—pron. mess-bannt, or, inverted, *Bandmass*—pron. bannt-mahss.

Taper, in Construction. A term used to indicate that a gradually decreasing size or diameter is given to a body. The derivation of this word is very doubtful. The probability is that it comes from "tap-root," which has a form gradually diminishing—"it tapers gradually off." The word can scarcely come from "taper," which is the precise form of the Old English word for a small light or candle. Syn. Fr. for "taper," *Terminé en pointe*—pron. terr-mee-nay ahn pwahnt; Ger. *Spitzig*—pron. spit-sig, also *Verschmälern*—pron. ferr-shmay-lairnt. Syn. Fr. for "to taper," *Terminer en pointe*—pron. tairr-mee-nay ahn pwahnt; also *Faire le cône*—i.e. to make the cone—pron. fair leh cohn, or *Tailler le cône*—i.e. to cut conelike—pron. tahl-yea; also *Chanfreiner*—pron. shahn-frain-eh; Ger. *Spitz machen*—pron. spits mah-chenn; also *Abschrägen* (from *schärfen*, to sharpen, to point)—pron. ahp-shair-fenn or *Zuspitzen*—pron. tsoo-spit-tsen; also *Abschrägen*—pron. ahp-shray-gen, or *Conisch machen*—i.e. to make like a cone—pron. kohn-ish mah-chenn. Syn. Fr. for "tapering," *Pointe terminée*—pron. pwahnt tairr-mee-nay; also *Recoupement*—i.e. "cutting again" (that is, if a piece has been cut once to cut it again: the part thus re-cut must be made smaller, and if it be re-cut at one end only it must become pointed or tapered off)—pron. reh-koop-mahn; Ger. *Spitzig werden*—pron. speet-sig-vairr-dén. By the term "tapering off to nothing" is meant that the conical or tapering end is so cut or formed that it terminates in the finest point possible.

Tapestry, in Upholstery and Cabinet Making. Der. Our word comes from the Latin *tapis*, and this from the Greek *tapez*, a woven carpet, or from the French *tapisser*, to carpet, which has also the above root. Tapestry is a carpet-like, woven or hand-worked material, used to hang vertically in place of being put on horizontal surfaces like floor carpeting, and is ornamented with figures of men and animals—pictures, in point of fact—but wrought into the material with coloured threads by hand or loom. The ladies of the Middle Ages were famous for their works in tapestry, the best work of which was afterwards reproduced by the celebrated tapestry factory near Paris, and which, known as the Gobelin tapestry, is so highly esteemed. Syn. Fr. for "tapestry hangings," *Tapiserie*—pron. tah-pea-ser-ree; Ger. *Wand* (wall) *-teppich* (carpet)—pron. vant-tepp-ich.

Task Work, in Working. A term synonymous with "piece work"—that is, work paid for according to the job or piece of work actually done, as distinguished from work paid for by a fixed daily or weekly wage. Der. Our word "task" comes from the Latin *taxare*, to impose a burden,

to tax, or more directly from the Old French *tasche*, a job or burden of work imposed on one. Syn. Fr. for "task work," *Travail à la tâche*—pron. trah-vahil ah lah tahsh; Ger. *stückweises Werk*—pron. stuek-vize-ess vairrk.

Teak, in Timber. One of the hardest, densest, and most lasting of the woods used in construction—chiefly for shipbuilding, or for steps of staircases in public buildings which are much used. It is of tropical growth. Syn. Fr. *Bois des Indes*, "wood of the Indies"—pron. bwah days aihnd; also *Chêne de l'Inde*—that is, "oak of India"—pron. shain deh laihnd; or *Tech*—pron. tesh; Ger. *Tekholz*, teak wood—pron. tekk-holts; also *Tekbaumholz*, teak building wood—pron. tekk-bowm-holts. *Der.* Our word comes from the word used in the Malabar tongue—this being one of the chief places of the growth of the tree—*tekka*, as the name of the timber. The tree is of the genus *Tectona*, from which also our word may be said to come.

Tear and Wear, in Tools and Materials. A term used as synonymous with deterioration through use. *Der.* Our word "tear" is from the Old English *teran*, to separate or divide generally a woven or paper material violently or suddenly. The word "wear" has also an Old English derivation, the word *werian* denoting the deterioration of arms, garments, etc., by continued or long use, or simply long usage, the natural result of which is deterioration in value. Syn. Fr. for "to tear," *Déchirer*—pron. day-sheer-ay; also *Lacérer*—pron. lah-sairr-ay; Ger. *Reissen*—pron. rice-enn; also *Rasen*—pron. rah-zenn. Syn. Fr. for "tear," *Déchirure*—pron. day-sheer-uehr; Ger. *Riss*—pron. riss. Syn. Fr. for "to wear out," *User*—pron. ueh-zay; also *Epuiser*—pron. eh-pweeze-ay; Ger. *Abtragen*—pron. ahp-trah-gen; also *Abnutzen* or *Erschöpfen*—pron. ahp-noot-sen, err-shoep-fenn. Syn. Fr. for "wear," *User*—pron. ueh-zay; Ger. *Tragen*—pron. trah-gen; also *die Tracht*—pron. dee traacht. Syn. Fr. for "tear and wear of materials," *Dégât des matériaux*—pron. day-gah day mah-trah-ee-oh; also *Détérioration*—pron. day-tare-yoh-rah-seeon; Ger. *Abnutzung von Materialien*—pron. ahp-noots-oong fon mah-ter-ee-ahl-en.

Tease Tenon, in Carpentry. A tenon placed at the upper end of a post to receive the mortise of a piece carried by it at right angles to its length. Syn. Fr. *Un tenon à la tête d'un poteau de bois*—pron. tenn-on ah lah tait duhn poh-toh deh bwah; also *Espèce de tenon*—pron. ess-pace deh tenn-on; Ger. *ein Hauptpfostenzapfen*—pron. ine howpt-pfoss-tenn-tsapp-fen; also *ein Artzapfen*—pron. ine-eh ahrt-tsapp-fen.

Temper, in Construction. A term used to indicate the treatment of certain materials

in order to change their condition, as tempering of clay—that is, so working or manipulating it that it becomes homogeneous and solid. To temper steel is to harden it by heat to enable it to take a keen cutting edge. *Der.* Our word comes from the Latin *temperare*, and this from *tempus*, time: to mix, to treat materials or substances so as to change or modify their condition,—and this is a work of time. A more curious derivation is the German *temerein*, which gave the original meaning of the word, and which indicated a piece or a part cut off, as in tempering clay, which cuts off or gets rid of water and extraneous substances. Syn. Fr. for "to temper" generally, *Tempérer*—pron. tahm-pair-eh; Ger. *Mässigen*—pron. mace-ig-enn. Syn. Fr. for "to temper clay" (a synonym for "to puddle"), *Mélanger*—pron. may-lahn-jhay; also *Combiner*—pron. com-bee-nay, or *Adoucir*—pron. ah-dooce-er; Ger. *Mischen*—pron. mishenn. Syn. Fr. for "to temper mortar," *Détremper le mortier*—pron. day-trahm-pay leh mohr-te-ay; also *Corroyer*—pron. korroy-ay; Ger. *Mörtel mischen*—pron. moerr-tell mish-en. Syn. Fr. for "to temper steel," *Tremper*—pron. trahm-pay; also *Attrempier*—pron. ah-trahm-pay; Ger. *Nachlassen*—pron. nach-lahs-sen. Syn. Fr. for "tempering" or mixing of earths, clays, mortar, and the like, *Gachage*—pron. gah-shahj; Ger. *Anrühren*—pron. ann-ruen-ren. Syn. Fr. for "tempering steel," *Trempe de l'acier*—pron. trahmp deh lass-ee-eh; Ger. *Stahlhärtung*—pron. stahl-hairr-toong.

Template or Templet, in Carpentry. What may be called a cushion-piece laid on the wall on which the end of a girder or large beam rests to distribute its weight over a large part of the wall. Syn. Fr. *Echantillon*—pron. ay-shahn-teel-yon; Ger. *Drehbret*—i.e. "turn board" (from *drehen*, to turn, to twist, a templet being turned round in working, or it may be a curved and twisted form, as templates often are)—pron. dray-brait; also *Schablone*—i.e. a pattern or mould or model—pron. shah-blon-neh. Syn. Fr. for "template"—that is, synonymous with "template for a beam" (which is a timber-plate, a piece of wood, or a block of stone laid under it as a bearing surface on a wall), *Cherche*—pron. shairsh; also *Calibre*—pron. kah-lee-berr; Ger. *Unterlagebalken* (from *Lager*, a couch or bed, or *Lage*, a position)—pron. oohn-terr-lah-geh-bahl-ken. Syn. Fr. for "template in joinery," *Modèle*—pron. moh-dail; Ger. *Model*; also *gemauertes Feld* (a panel)—pron. gay-mow-er-tes felt. Syn. Fr. for "template in masonry," *Calibre*; also *Panneau de maçonnerie*—pron. pah-noh deh mah-sonn-e-ree; Ger. *Lehrbrett*—i.e. pattern or model board. Syn. Fr. for "template for a moulding," *Echantillon de la moulure*—pron. ay-shahn-

teel-yon deh la mool-uehr; Ger. *Simsmodel* (*Sims*, a moulding)—pron. zims-moh-dell; also *Simsschablone*—pron. shah-bloh-neh. For a "template used in architectural drawing," to draw in intricate curved lines with, or eccentric lines not capable of being described by arcs of circles from centres, synonymous with "curved sets" or "drawing curves": Syn. Fr. *Pistolet*—pron. pistoh-lay; Ger. *Lineal*—pron. leen-eh-ahl; or *Linienschablone*—that is, a curved ruler model or pattern, or a line model—pron. leen-ee-enn-shah-bloh-neh. A more correct synonym is *Curvenlinealschablone*—that is, a curved ruler model—pron. koor-venn; also *Wellenschablone* (from *Welle*, a wave)—that is, a waved (outline) model—pron. vel-len.

Tenacity, in Materials. The term used to denote the strength of the fibres of wood, or of metal, as iron or steel, to resist being pulled asunder or having its fibres torn asunder in the direction of its length, or broken across by pressure bearing or weight resting upon it. In some respects tenacity in material is synonymous with transverse or cross strain, but not strictly so; for, although a beam under cross strain (see Strains) has its fibres on its lower sides exposed to a strain opposed to that of tenacity, those of the upper part are exposed to a strain of compression. The term a strain of extension or a longitudinal strain is therefore a better synonym for tenacity than cross or transverse strain; for, in testing the tenacity of a material, the fibres are extended (see Tension). *Der.* Our word "tenacity" comes from the Latin *tenax*, *tenacis*, and this from *tenere*, to hold or hold fast. Syn. Fr. *Ténacité*—pron. tain-ah-see-tay; Ger. *Zähheit*—pron. tsay-hite; also *Zähigkeit*—pron. tsay-ich-kite. Syn. Fr. for "tenacious," *Tenace*—pron. tenn-ass; Ger. *Festhaltend*—pron. fesst-hall-tent. Certain substances such as glue are said to be tenacious. A French equivalent for tenaciousness, or the quality of tenacity in gum, glue, or the like, is *Viscosité*—pron. veece-koss-ee-tay; Ger. *Kleberigkeit* (*kleben*, to stick, to cleave to anything)—pron. klay-bay-rich-kite.

Tender, in Building. A document offering, or proposing to offer, to undertake the doing of certain work in connection with structures, their erection, repair, etc., at a certain price, or for a certain sum. *Der.* From the Latin *tendere*, to hold out, to stretch out, to offer, as one stretches out to reach one to whom the thing is offered. The word, however, comes more directly from the French *tendre*, to stretch out, to extend. Syn. Fr. *Submission* (which is a synonym for our submitting—submitting an offer—a "placing or putting under" the hand)—pron. soo-meece-yon; Ger. *Offerte*, offer—pron. off-fair-teh; also *Ausschreiben*

—i.e. writing out the prices—pron. owss-shribe-en. Syn. Fr. for "to send in a tender," *Soumissionner*—pron. sooh-miss-ee-onn-ay; Ger. *eine Offerte übernehmen*—pron. ine-eh offerr-teh ueh-berr-nay-men; or *einreichen*. Syn. Fr. for "to tender" for materials or supply of materials, *Entreprendre une provision* (or *fourniture*) *des matériaux*—pron. ahn-terr-prahn-derr uehn proh-viz-yon (or foohr-nee-tuehr) day mah-tairr-ee-oh; Ger. *eine Offerte für Proviant* (or *Lieferung*) *der Materialien machen*—pron. i-neh of-fairr-teh fuehr proh-vee-ann dare mah-terr-ee-ahl-en.

Tenon, in Carpentry and Joinery. That part cut at the end of a piece of timber which goes or is forced into the aperture or hole (see Mortise) cut in the face of another piece by which the two pieces are secured or jointed (see Joint) together. The form of the tenon may be rectangular—that is, longer than broad or square, or it may be shaped like a fan (see Dovetail and Swallowtail), narrower at the one end—this always the upper—than the other, the lower. The thickness or width of the tenon may be equal to the thickness or width of the piece of timber on which it is formed, or it may be less than the width of this, and placed in the centre of the end section of piece, so that flat spaces are left on each side; and if the breadth of tenon is less than the breadth of the piece, at each end also,—these flat places are called the "shoulders" of the tenon,—or the tenon may have its thickness or width less than that of the thickness of the piece, and yet be at one side of its end section; so that the shoulder shall be at one side only, the other or outside face of tenon being flush with the outside face of piece. A "double tenon" is that in which two single tenons are cut at the end of the piece, so that a space is left between them; with two spaces the tenon is a treble tenon. *Der.* Our word comes from the French *tenir*, and this from the Latin *tenere*, to hold, hold fast or securely. Syn. Fr. for "tenon" simply, *Tenon*—pron. tenn-ohn; also *Menton*—pron. mahn-ton; Ger. *Zapfen*—pron. tsapp-fenn; also *Vorstoss*—pron. foohr-stoss. This latter term has a curious meaning in reference to the tenon joint; it is literally "a before thrust or push"—that is, it is the part thrust forward in joining it with the piece which is mortised or pushed before, or driven into the mortise. Syn. Fr. for "dovetailed tenon," *Tenon à peigne* (comb-shaped)—pron. tenn-on ah paing. The more correct term is *Tenon à queue de colombe*—pron. keuh deh kol-ohmb, or *Tenon à queue colombe*—pron. kol-ohm-bay, or simply *Tenon à queue*, which is tail tenon; Ger. *Kammzapfen*, comblike. The more precise synonym is *Taubenschwanzzapfen*—pron. tow- (as in cow) benn-shvantss-tsapp-fen. Syn. Fr. for a "square dovetail," *Tenon*

équerre; Ger. *Viereckiger Zapfen*, four-edged tail—pron. feer-ekk-ee-gerr-tsapp-fen. Syn. Fr. for a "double tenon," *Tenon à double*—pron. dooh-bell; Ger. *Doppelpapfen*—pron. dopp-ell. Syn. Fr. for a "keyed tenon" (in this the tenon is further secured to the piece mortised by having a key driven in which takes hold of the face of the mortise hole and of the tenon), *Tenon passant* or *Tenon avec un clef de bois*—pron. teun-on pah-sahn, or ah-veck uuhn clay deh bwah; Ger. *ein Zapfen mit einem Keil am Schlüssel*—pron. ine tsapp-fen mit ine-em kile am shluess-sell.

Tension, in *Materials*. The condition in which materials are placed in which they are exposed to a longitudinal strain, or one in the direction of the length of their fibres, and by which their tenacity (which see) is proved. *Der.* From the Latin *tensio*, and this from *tendere*, *tensum*, to stretch or extend by lengthening. Syn. Fr. *Tension*—pron. tahn-see-on; Ger. *Spannung*—pron. spann-oong. The synonym for a strain or force of tension is "tensile strain." The word tensile comes from the same root as that of tension. Syn. Fr. for "tensile strain," *Force de tension*—pron. forrss deh tahn-see-on; Ger. *Spannungskraft*.

Tension Rods, in *Roof Construction*. Iron rods used in what are called "combined roofs," in which timber is partly—generally chiefly—used, and wrought iron partly. The iron rods are substituted for king and queen posts and tie-beams—those parts of a roof being in a state of tension, or, as the synonym puts it, subjected to a tensile strain. The strength of iron to resist tension, as compared with a piece of timber of the same section, is so very much greater, than an iron rod of much less cross-section than that of the timber piece can be used, thus giving a much lighter truss. Syn. Fr. *Tirants de fer forgé pour un toit*,—pron. tee-rahn deh fairr forr-jhay pour euhn twah, or *Comble à toiture*—pron. cohm-bell ah twaht-uuhr; Ger. *hammer-eiserne Zugstange für ein Dach*, or *Gedeck*—pron. ham-mer-ize-er-neh tsoog-stang-eh fuer ine dach, geh-dekk.

Tenter-hook, in *Ironmongery and Joinery*. A hook the tail or long and pointed end of which is driven into wood, as the edges of shelves, the front or projecting part being bent upwards in the form of a hook or curved point. The office of the tenter-hook is to carry articles of the kitchen, principally those having handles, such as jugs, the hooked part passing within the corner of the handle of, and thus supporting, the article which is thus suspended. Another form of tenter-hook, often called a clothes or brass hook, consists of a screwed tail which is screwed into the wood, the hook part being of brass, and formed by turning up the end,

which is terminated by a knob. The name is borrowed from the hooks of the apparatus used in the manufacture of cloth, known by the name of the "tenter" or "cloth tenter," which is a frame provided at the end cross-bars with a row of hooks, which catch the cloth at one end and enable it to be stretched and fixed by the corresponding rows of hooks at the other. *Der.* The word tenter comes from the Latin *tendere*, *tentum*, to stretch, or from the French *tendre*. Another derivation suggested is that tenter-hooks are keeping hooks, and this from the old word *tent*, to keep, as in the phrase still widely used, more especially in the manufacturing districts, an "engine tenter," and *tent* itself in this form being a corruption of *tend*, which means the same thing. Syn. Fr. for "tenter-hook," *Clou à crochet*, a hooked nail—pron. klooh ah krosch-eh; also *Clou à tête courbée*—that is, a nail with the head or end (*bout*) curved—pron. klooh ah tate koorr-bay; or *Clou à queue piquée*—that is, with a tail pricked or pointed—pron. klooh ah keu pee-kay; also *Clou à bec de canard* or *cane*—that is, a nail with the end finished with a curve like the neck of a drake or duck—pron. klooh ah bekk deh kahn-ahr, or kahn; Ger. *Spannhaken*—that is, bent hook—pron. spann-hah-kenn; also *Haken-nagel*—pron. hah-kenn-nah-gell.

Terminal, in *Architecture and Building*. The upper part of an object, as the gablet of a buttress—the finial—which is a synonym for the term in Gothic architecture. A chimney cap or cope stone is a terminal. *Der.* From the Latin *terminalis*, the end or extremity of an object. Syn. Fr. for terminal, *Couronnement*, the crowning or top piece—pron. koohr-onn-mahn; also *Tête terminée*—pron. tête tairr-mee-nay, or *Terminaison de la tête*—pron. tairr-mee-nai-zon deu lah tate; Ger. *Ende*—pron. enn-deh; also *Hauptende* or *Kappe*—pron. howpt-enn-deh, kap-peh.

Terrace, in *Architecture and Building*. A part of a building site raised above the level of the surrounding ground, affording a flat or level space or platform, which may be a carriage drive approached by inclined ways, or an esplanade or walk, or, on a less extended scale, a space for flower plots, or grass-covered slopes. The terrace is generally approached by steps or flights of stairs, and bounded by balustrades or railings. In ordinary building sites, where the level is generally low and ground surface flat, the house may be raised upon a platform of made soil of sufficient area to leave a free space, termed a terrace, all round the house, or at one or more sides. The term in architecture is applied to a building, as a row of houses built at a higher level than another, the higher level structures being approached by a walk or front, raised on

arches and bounded on the outer side by balustrades or iron railings. When a row of buildings stands on a higher level than another row, or above a road passing in front, the higher site being formed by a natural rise of the ground, the higher row of houses is designated by the name of a terrace. The same term is also applied to a balcony or gallery. *Der.* Directly from the French *terrasse*, and this from the Latin *terra*, earth. Syn. Fr. *Terrasse*—pron. terr-ass; Ger. *die Terrasse*—pron. terr-ass-eh; also *Erdwand*, an earth wall—pron. airrd-vant, or *Erddecke*—pron. airrd-dekk-eh. Syn. Fr. for "as, or in the form of, a terrace," *En terrasse*—pron. ahng terr-ass; Ger. *Erdwandförmig*—pron. airrd-vant-foerr-nig; also *Terrassenförmig*. Syn. Fr. for "terraced," *à Terrasses*—pron. ah terr-ass; or *Terrassé*—pron. terr-ass-eh; Ger. *Terrassenförmig*. Syn. Fr. for "terrace walk or promenade," *Promenade de terrasse*—pron. proh-men-nahd deh terr-ass; also *Sentier* (footpath) *de terrasse*—pron. sahn-teay; Ger. *Terrassenspaziergang*, or *Terrassenallee*—pron. terr-ass-en-spahts-earr-gang, -all-eh; also *Terrassenweg*, or *Terrassengang*—pron. vaig. Syn. Fr. for "terrace as a balcony or gallery," *Balcon*—pron. bahl-kon; Ger. *Altan*—pron. ahlh-tahn, also *Söller*—pron. zoe-lerr.

Tessellated Pavement, in *Building*. Often used as synonymous with Mosaic or encaustic tile pavement. Properly defined, it means a pavement set with, or formed of, tiles in the form of little cubes, or tiles showing squares in surface. *Der.* The term comes from the Latin *tessella*, a little cube, the diminutive of *tessera*, signifying a square block or piece of stone, wood, etc., and this from the Greek *tessares*, four (sided). Syn. Fr. for tessellated pavement, *Pavé à damier*—i.e. pavement formed like a draught-board—pron. pah-vay ah dahm-yea; also *Mosaïque*—pron. moh-zah-eek, or *Pavé à contre-échiqueté*—pron. pah-vay ah kohn-terr eh-sheek-eh-tay (*échiqueté*, checkered—from *échiquier*—pron. eh-sheek-yea).

Test, To, Materials. To prove or try them in order to ascertain their value—that is, their strength to resist strains or pressures. Stones are tested to find their resisting power to compression or crushing strains chiefly, timbers to cross or transverse strains, iron (wrought) to tensile, and cast iron to compression. The results of various tests have been formulated, and constants or certain figures are tabulated by which the average "strengths" of various materials can be tested. *Der.* Our word "test" comes somewhat curiously from the Latin *testis*, a witness, or from *testa*, an earthen pot (a crucible or a cupel) in which metals were melted and tried—that is, as we say, tested for their purity or other-

wise. Syn. Fr. for "to test materials," *Eprouver les matériaux*—pron. eh-proo-vay lay mah-tair-ee-oh; Ger. *die Materialien probiren*—pron. dee mah-tair-ee-ahl-en proh-beer-en. Syn. Fr. for "proof test by ultimate breaking of the material," *Preuve par petit cassé* (breaking by weights gradually, or a pressure gently put on)—pron. preuhv parr pett-eeh kah-say; also *par grand cassé*, by sudden blows, or by pressure quickly put on (from *casser*, to break); Ger. *schwache* (gentle proof) *Bruchprobe*—pron. shvah-che brooch-proh-beh; also *starke Bruchprobe*—pron. starr-keh.

Tetrastyle, in *Architecture*. That arrangement of Grecian architecture in which four pillars formed the portico. *Der.* The word is from the Greek *tetra*, four, and *stylos*, a pillar. Syn. Fr. Same word as ours with the first e accented—pron. tay-trah-steel; Ger. *Viersäulig*—i.e. four-pillared—pron. fear-zoy-lich.

Thatch, in *Roofing*. The straw covering used in rural and farm buildings in place of shingles, tiles, or slates. Thatching is, however, sometimes done with materials other than straw, such as heather, bracken, or fern, and branches of trees—sometimes turfs. *Der.* Our word is from the Old English *thac*; the Lowland Scotch term is almost identical—*thack* or *thakk*. Syn. Fr. *Toiture* (or *Comble*) *en paille*—pron. twah-tuehr (kohm-bell) ahn pah-eel; Ger. *Strohdach*—pron. stro-dach.

Thick Stuff, in *Joinery and Materials*. Boards and planks, or, to use the general or popular word, wood, of the greatest thickness cut up from balks. *Der.* Our term thick comes from the Old English *thæce*, opposed to thin, in the sense of being of greater depth than width. Syn. Fr. for "thick," *Epais*—pron. eh-pay, or *Compacte*—pron. kohm-pakkt; also *Gros*—pron. groh; Ger. *Dick*—pron. dick; also *Dicht*—pron. dicht (ch as in the Irish och). Syn. Fr. for "to thicken," *Epaissir*—pron. eh-paiss-er; also *Grossir*—pron. groh-seer. Ger. *Verdicken*—pron. ferr-dick-en; also *Verdichten*—pron. ferr-dicht-enn, or *Ver-mehren*—pron. ferr-mairr-enn. Syn. Fr. for "thickness," *Epaisseur*—pron. eh-pace-eurr; also *Grosseur*—pron. groh-seuhr; Ger. *Dicke*—pron. dick-eh; also *Dichtheit*—pron. dicht-hite. Syn. Fr. for "a piece of stuff (which see) thicker than it is broad," *Pièce méplat*—pron. pee-ace may-plah; Ger. *ein dickeres Stück*—pron. ine dicker-ess stueck; or *Stück dicker als breit*, also *ein Stück dichter als breit*—pron. als brite. Syn. Fr. for "thickness of planks or boards in joinery," *Champ des planches*—pron. shahm day plahnsh; Ger. *die Dichtigkeit* (or *die Dicke*) *der Bretter*. Syn. Fr. for "thickness of layer," as of clay in puddling, or layers of concrete in foundation work, *Epaisseur*

des couches—pron. eh-pace-eurr day koosh; also *Epaisseur d'un filou*—pron. fee-loo.

Thin Stuff, in Joinery and Materials. Thin boards and planks as opposed to thick stuff (which see above). *Der.* Our word thin comes from the Old English *thinne*, having little thickness. Syn. Fr. for "thin," *Mince*—pron. mahnce; Ger. *Dünn*—pron. duehnn. Syn. Fr. for "to make thin," *Amincir*—pron. ah-maihn-seer; also *Attenuer*—pron. ah-ten-nue-eh; Ger. *Verdünnen*—pron. ferr-duen-nen. Syn. Fr. for "thinning," *Tenuité*—pron. tay-nue-ee-tay; Ger. *Dünnheit*—pron. duehn-hite. Syn. Fr. for "to make a board thin," *Amalgirer une planche*—pron. ah-may-greer uehn plahnsh; Ger. *ein Brett dünner machen*—pron. ine brett duehn-nerr mach-enn. Syn. Fr. for "to make a stone thinner," *Démaçonner une pierre*—pron. day-mah-sonn-eh uehn pee-airr; Ger. *einen Stein behauen*—pron. ine-enn-stine beh-how-enn. Syn. Fr. for "thinning of boards or planks in joinery," *Amincissement des planches*—pron. ah-maihn-seece-mahn day plahnsh; Ger. *Dünnmachen der Bretter*.

Through Stones, or Throughs, in Masonry. Sometimes called Thorough stones; also Perpend (which see). The large stones long enough to go "through" the thickness of the wall, and show their end sections at each face or side of it. *Der.* Our word "through" comes from "thorough," and this from the Old English *thuruh*, going on or passing to the end—complete. This last sense of the word is seen in the French synonym, namely, *Complect*—pron. kohm-play; also *Entier*—pron. ahn-teay; Ger. *Durch*—pron. doorch; also *Ganz*—pron. gahntss, or *Völlig*—pron. foell-ig; also *Durchgängig*—pron. doorch-geng-ig. Syn. Fr. for "through stone" or "through," *Pierre passante*—pron. pee-airr pah-sahnt; Ger. *Durchgängiger Stein*—pron. doorch-geng-ig-err stine.

Thrashing Machine Room, in Farm Architecture. The apartment in farmeries or farm steadings in which the thrashing machine is placed. *Der.* Our word thrash is from the Old English *threscan*, to beat out the seed, grain, or corn from the ears of the stalks of wheat, barley, etc. Syn. Fr. for "thrashing machine room," *Chambre pour le moulin (mill) ou machine à battre le blé* (wheat, etc.)—pron. shahm-berr poor leh moooh-lain oo mah-sheen ah baht-terr leh blay, or *La machine pour battre le grain*—pron. graihn; also *Egranoir*—pron. eh-grahn-wahr; Ger. *Dreschmühle* (machine mill)—*kammer*—pron. dresh-mueh-leh-kah-merr; or *Dresch-tenne*.

Three-coat Work, in Plastering. Pricking up or roughing in, floating and finishing. Syn. Fr. *Trois couches de plâtre*—pron. trwah coosh deh plah-terr; Ger. *Dreischichtpflasterwerk*—pron. dry-shicht-pflast-terr-vairrk.

Threshold, in Building. The flat stone, cill or sill placed at the entrance door of a house. It is often called, and perhaps more frequently, the doorstep, as it is the first stone on which one places the foot on entering a house. It lies immediately under the door, the lower edge of which sweeps in the curve of its movement over or close to its surface. *Der.* The word comes from the Old English *threscwald*, and this from *threscan*, to beat or beat out, and *wald*, wood—the doorstep being in olden time most frequently of wood, as many of the houses or huts were. Syn. Fr. for "threshold or door sill," *Pas de porte*—pron. pah deh porrt; also *Seuil*—pron. seuyt; Ger. *Thürschwelle*—pron. tuehrr-shvell-leh; also *Holzschwelle* (wood sill) *unter der Thür*—pron. holts-shvell-leh oohn-terr der tuehrr.

Throat Chimney, in Building. That part of a chimney flue (see Chimney) at which the wider part or opening of the fireplace (which see) narrows or "gathers," to use the technical phrase, into the lesser dimensions of the flue proper (see Flue). A synonym sometimes used is the "gathering" of the chimney. *Der.* Our word throat is from the Old English *throto*, the inner or the interior part of the neck. Syn. Fr. for "throat of the chimney," *Pied de cheminée*, the lowest part of the chimney flue, where it assumes its proper dimensions—pron. pee-ay deh sheum-ee-nay; Ger. *Schornsteinfuss*—pron. shorrr-stine-fooce.

Thrust, in Construction. A term used to indicate a pressure upon a structure or part of a structure, tending to push it out of its place or the true line of its strength or stability. *Der.* Our word comes from the Old English *thrista*, to fence, to push. The phrase "thrust," such as the "thrust of an arch," may be taken as synonymous with the pressure or strain thrown upon it, and which is exercised in certain directions. The line of thrust may thus be taken to indicate the line of pressure. Syn. Fr. for "thrust," *Coup*—pron. kooht (which indicates rather a sudden blow or stroke than a push, which generally is slowly exerted, and is better understood in the syn. *Poussée*, from *pousser*, to push—pron. pooss-say); also *Effort*—pron. eff-forr; Ger. *Stoss* (from *stossen*, to push)—pron. stohss; also *Stich* (from *stichen*, to thrust, to prick)—pron. stich. Syn. Fr. for "line of thrust," *Ligne de poussée*—pron. leegn deh pooh-say; Ger. *Stichlinie*—pron. stich-leen-yeh. Syn. Fr. for the synonym for the last phrase, "line of pressure," *Ligne de pression*—pron. leegn deh press-see-on; Ger. *Drucklinie*—pron. drook-lean-yeh; also *Pressenlinie*. Syn. Fr. for "the thrust of a beam of an arch," etc., *Poussée ou effort d'une poutre, d'un arc, ou d'une voute*—pron. pooh-say ooh eff-forr duehn pooh-terr, duun ark, ooh duehn voot;

Ger. *Balkenstoss*, or *Gewölbstoss*—pron. geh-voell-beh-stohss.

Tie, in Construction. A piece of timber, as a rod or bar of iron, placed in any position, but such that it is put so as to resist tensile strain (see *Strain*), and thus act as a chain or tie in preventing the parts, as walls, to which it is connected, from receding from each other or being pushed outwards, or to resist the thrust (which see). *Der.* Our word comes from the Old English *tygan*, to bind, to fasten with a band, a rope, or a cord. If the root is to be followed, "tye" is a more correct spelling than tie. Syn. Fr. for "tie or band," *Attache*—pron. ah-tahsh; also *Lien*—pron. lee-an; Ger. *Band*—pron. bant. Syn. Fr. for "tie in carpentry," *Lien en charpentry*—pron. lee-an ahn shar-pahn-ter-ee, or *Clef en charpentry*; also *Régipeau*—pron. raijh-ee-poh; Ger. *Mauerband*, a wall tie or tie-beam—pron. mow-err-bant; also *Verbindungsstange der Mauer*—pron. ferr-bin-doongs-stahn-geh dare mow-err. Syn. Fr. for a "tie-beam," or the principal horizontal timber of a framing, as a roof, *Maitre poutre*—i.e. master beam—pron. may-terr pooh-terr; also *Maitre entrain*—pron. ahn-tray; Ger. *Bindebalken*—pron. binn-derr-ball-kenn. Syn. Fr. for a "vertical tie," such as a king post of timber or a rod of wrought iron, sometimes called also a hanging or suspending tie, *Moise pendante d'un ferme*, or *d'une comble* (a framing, a roof)—pron. mwahze pahn-dahn deuhn fairrm, deuhn kom-bell; Ger. *Dachhängeband*—pron. dach-heng-eh-bant. Syn. Fr. for the term "tie-piece of a floor," a synonym for "floor struts," *Bloche*—pron. blösh; also *Rouleau*—pron. rooh-loh, or *Contrefiche*—pron. kohn-terr-feesh; also *Guigneau*—pron. geeng-yoh. Ger. *Sprosse*—pron. spros-seh, or *Stichbrett*—pron. stich-brett; also *Stichbalken der Fussbodensparren*—pron. stich-bahl-kenn der fooss-boh-den spahr-renn.

Tighten up, in Carpentry and Joinery. A term used to indicate the operation of bringing parts together, as a wall-plate with a tie-beam, or boards together as in a braced door, or in tongued and ploughed planks, etc. *Der.* Our word "tight" comes from the Old English *getiged*, and this from *tigan* or *tian*, to tie or bind together. Syn. Fr. for "tight," *Serré*—pron. serr-eh, or *Etroit*—pron. eh-trwah; also *Raide*—pron. raid, or *Bien fermé*—pron. bee-ahn-fairr-may; Ger. *Tüchtig*—pron. tuech-tig, or *Gespannt*—pron. geh-spahnt; also *Enge*—pron. enng-eh, or *Knapp*—pron. knapp. Syn. Fr. for "tightness," *Etat de ce qui est serré*—pron. eh-tah deh se kee ai serr-eh; Ger. *Engigkeit*—pron. enng-ig-kite; also *Knappheit*—pron. knapp-hite; also *die Enge*. Syn. Fr. for "to tighten up," *Raidir* pron. ray-deerr; Ger. *Knapp machen*—pron. knapp-mah-chenn.

Tiles, Roof. Flat earthenware or brick-like material slabs used to cover the spaces between the common rafters of a roof in place of slates. When the tile is curved with a curve of contrary flexure it is called a Dutch tile, and is much more frequently used for roof covering than the flat tile. *Der.* Our word comes from the Old English *tigel*, or from the Latin *tegula*, and this from *tegere*, to cover. Syn. Fr. *Tuile*—pron. tweel, from which our word comes; Ger. *Dachziegel*—literally "roof brick"—pron. dach-tsee-gell. Syn. Fr. for a "tiled roof," *Couverture d'une comble en tuiles*—pron. kooh-vairr-tuehr deuhn kohm-bell ahn tweel; Ger. *Deckung mit Dachziegeln*—pron. dekk-oong mit dach-tsee-gell. Syn. Fr. for "pan-tile," *Tuile faitière*—pron. tweel fay-tee-airr; Ger. *Krummziegel*, crooked or curved tile; also *Dachpfanne*—pron. dach-pfann-eh. Syn. Fr. for "gutter tile" (the synonym for which is Hip tile or Hip-roof tile, or Valley tile), same as last term. For "hip-roof tile," *Tuile de toiture (or comble) en croupe*—pron. tweel deh twah-tuehr (kohm-bell) ahn kroop; Ger. *Walmdach, or Hohldachziegel*—pron. valm-dach, hole-dach-tsee-gell. Syn. Fr. for "flat tile," a tile proper, which is a flat-surfaced, thin, rectangular-shaped body of burnt clay, *Tuile plat*—pron. plah; also *Tuile à crochet*—pron. ah krosh-eh; Ger. *Plattdachziegel*—pron. platt-dach. Syn. Fr. for "to put on tiles," *Poser les tuiles*—pron. poh-zay lay tweel; Ger. *Dachziegel auflegen*—pron. owff-lay-genn. Syn. Fr. for "tile pin," the wood pin by which the tiles are secured to or hung from the spars of the roof, which run at right angles to the rafters, *Clou de bois pour les tuiles*—pron. klooh deh bwah poohr lay tweel; Ger. *Dachziegelholznagel*—pron. dach-tsee-gell-holts-nah-gel. The term "tile" is used also in architecture, and denotes the flat and thin member which crowns the capital of an order. Its edge is sometimes square or flat—sometimes moulded with an ogee moulding. Syn. Fr. *Moulure supérieure du chapiteau*—pron. mooh-luehr sue-pairr-eeur due shah-pee-toh; Ger. *Kapitalobersims*—pron. kah-pee-tahl-oh-berr-zimms. Syn. Fr. for "tiler," the workman who places tiles on roofs, etc., *Couvreur des tuiles*—pron. koohv-reuhr day tweel; also *Tuileur*—pron. tweel-euhr; Ger. *Dachziegeldecker*—pron. deck-err.

Timber, in Materials. The material for building purposes obtained from trees. The great bulk of the timber used for this purpose is obtained from trees grown in the vast forests of the north of Europe (Sweden, Denmark, and Norway being the chief, if not practically the only, countries in which the trees are obtained which furnish our European supplies of timber), and in the still more vast and extensive tracts of land occupied by trees on the continent of

America. In addition to these sources come those of our Colonial possessions, such as India, which however yield timber of a more special, and in many instances of a rarer quality and higher value than the trees of the north of Europe in the Old, and of America in the New World, above named, which yield chiefly our supplies of pine wood, or what is more popularly called fir—these, however, being used in by far the largest proportion for building purposes. From the north of Europe come the best and most highly esteemed pine timbers, known as Memel, Dantzic, and Baltic, etc.; from the United States the pine timbers known generally as “American.” The pine timbers may be classed under one or other of the three divisions—these indicating timbers in the scale of ascending value—white, yellow, and red. The timber from America comes to this country almost exclusively in the form of rough balks, so called, or large square-sectioned beams, which are here cut up into planks and boards of the dimensions used by the building trades. The timber from the north of Europe comes to us chiefly in the cut form of battens and planks, which are again cut up as desired. In addition to the pine timbers so almost exclusively used by builders in house and in other constructions, what are known as home-grown timbers afford other supplies useful in the building arts. These are almost exclusively the product of hardwood trees, such as oak, ash, beech, elm, and the like; while the softer and less valuable, such as larch and poplar, are also largely used. These timbers, the product of our own plantations—as we have no vast extents which truly deserve the name of forests—are supplied to the trades in the original form of boles or trunks and branches of trees, and are hence known otherwise as round timber, the synonymous term for home-grown timber. The terms “timber” and “wood,” generally considered, are indifferently used, as if they were synonymous. Strictly, however, they indicate two different things, or rather two forms of the same material. The term “timber” applies to the rough unfinished form in which the trades are supplied with the material, in the form of balks or beams, and trunks and large branches of trees; the term “wood” to this rough timber cut up into planks, boards, and battens ready to be used by the joiner and cabinet maker, etc. *Der*. Our word timber comes from the Old English *timbor*, meaning tree wood; it may also be a transformation of the German *Zimmer*, which is the first part of the word for timber, namely *Zimmerholz*—that is, wood used in the erection of chambers or rooms, as if this were the use to which, *par excellence*, it was applied. Syn. Fr. for

“timber for construction,” *Bois d'équarrissage*, wood squared—that is, cut up into large square-sectioned balks or beams, ready to be cut up into smaller-sized pieces, timber in the original form of trees being called *Arbre*, felled and cut up trees *Bois*—pron. bwah dayk-ahr-eece-ahj. Another French synonym is *Bois d'ouvrage*—that is, wood for working—pron. bwah doohv-rahj; also *Bois de travail*, meaning the same thing as last term—pron. bwah day trah-vahil; Ger. *Zimmerholz* (see above)—pron. tsim-merr-holts; also *Arbeitsholz*—pron. ahr-bite, or *Werkholz*, both meaning work or working wood—pron. vaiirk. Syn. Fr. for “round or home-grown timber,” *Marchandise de forêts* (*forêt*, forest)—pron. marrsh-ahn-deeze deh forr-ay; Ger. *Forstholz* or *Waldholz*—pron. forst- or vald-holts; also *Nutzschnittholz*, “useful (*Nutz*) art wood”—that is, wood which can be used in the arts, as different from wood of forests or plantations—useful only for burning as fuel, which is called *Brennholz* (from *brennen*, to burn)—pron. noots-shneet-ten-holts; also *Bauschneittholz*. Syn. Fr. for “standing timber,” in the trade of the round timber or home-grown timber merchant (trees or tree timber not cut down but still growing in the plantation or forest), *Bois en état de la forêt*—pron. bwah en eh-tah deh lah forr-eh, or *Bois en pied*—i.e. wood on or in foot—pron. bwah ahn pee-ay; also *Bois en haute futaie* (*futaie* [fueh-tay], plantation or forest of high trees, not low-growing trees or brushwood: *haute futaie* means high trees—that is, not cut down)—pron. bwah ahn hoht fueh-tay; Ger. *stehendes Holz*—pron. stay-end-ess holts, or *Standholz*—pron. stant; also *Stellholz*—or *hochstehendes Holz*—pron. hoach-(ch soft); also *Stammholz* (i.e. trunk wood) or *hochstämmiges Holz*—pron. hoach-stem-mig-ess. Syn. Fr. for “tree felling” or “cutting down of forest trees,” *Triage* or *Taille en forêt*—pron. tree-ahj or tah-el ahn forr-eh; Ger. *Holzschlag* (*Schlag*, stroke or blow [of the axe] in cutting)—pron. holts-shlahj; also *Holzfüllung*. Syn. Fr. for “timber (round) with the bark on it,” *Bois écorcé* (*écorce*, bark; *écorcer*, to bark or strip off the bark)—pron. bwah eh-korce-eh; also *Bois grume*—i.e. uncleft wood—pron. bwah gruehm; Ger. *Holz mit der Borke*—pron. holts mit dare bohr-keh, or *Holz mit der Baumrinde* (tree rind)—pron. bowm-rin-day; also *berindetes Holzbaum*—pron. beh-rin-deh-ess holts-bowm. Syn. Fr. for “crooked, round, or home-grown timber,” *Bois en haute futaie comé*—pron. kohm-bay; Ger. *Krummforstholz*—pron. kroohm-forrst-holts. Syn. Fr. for “sound timber,” *Bois massif*—pron. bwah mah-seef; also *Bois plein*—pron. plein; Ger. *massives Holz*—pron. mah-see-ess holts. Syn. Fr. for “weak or unsound

timber," *Bois faible*, or *Bois en construction faible*—pron. bwah en kohn-struek-see-on fay-bell; Ger. *schwaches Holz*—pron. shwach-ess holts. Syn. Fr. for "straight timber"—that is, timber cut up into balks or battens, square in section, and not crooked or off the true line, in lengths ready for use by the carpenter, *Bois de charpentier*—pron. bwah deh sharr-pahn-tee-ay, or *Bois charpente*—pron. sharr-pahnt; also *Pièce de charpente*—pron. pee-ace deh, or *Poutre équarrée*—pron. pooh-terr eh-karr-eh; also *Bois carrée*—pron. karr-eh, or *Bois carrée en solive* (beam or batten)—pron. bwah karr-eh ahn soh-leeve, or *Bois équarrissage*—pron. eh-karr-eece-ahj. Syn. Fr. for "to work timber," *Charpenter*—pron. sharr-pahn-teh; Ger. *Holz behauen*—pron. holts-beh-how-enn; also *bearbeiten*—pron. beh-ahr-bite-enn. Syn. Fr. for "timber work," *Charpenterie*—pron. sharr-pahn-ter-ee, or *Menuiserie*—pron. menn-wee-ze-ree; also *Construction en bois*—pron. kohn-strooks-see-on ahn bwah; Ger. *Zimmerwerk*—pron. tsim-merr-vairrk, or *Holzwerk*; also *Holzbau*—pron. holts-bow-enn. Syn. Fr. for "timber framing," *Solivure en bois*—i.e. beam wood-work—pron. soh-leeve-uhr ahn bwah, or *Chassis*—pron. shass-ee; also *Carcasse de bois*—pron. karr-kass deh bwah, or *Boiserie*—pron. bwah-ze-ree; Ger. *Holzbalkenlage*—pron. holts-bahl-kenn-lah-geh; also *Zimmerbalkenwerk*—pron. tzim-merr-bahl-kenn-vairrk. Syn. Fr. for "a timber merchant," *Marchand de bois*—pron. marrsh-ahn deuh bwah; Ger. *Bauholzändler*—pron. bough-holts-hend-lerr. Syn. Fr. for "timber workshop," *Atelier de construction en bois*—pron. ah-tell-yea deuh kohn-struek-tseen; Ger. *Bauholzwerkstelle*—pron. bough-holts-vairrk-stell-eh. Syn. Fr. for "timber yard," *Chantier*—pron. shahn-tee-ay; Ger. *Zimmerholzplatz* or *-lager*—pron. tsim-mer-holts-plahts or -lah-gerr.

Tint, in *Painting*. A term used to indicate a slight covering or touch of colour different from, yet harmonising or "being in keeping" with, the general colour of the surface, as a "slight tint." It is sometimes used as indicating the peculiar "shade," or as otherwise expressed its "tone," of a colour used for mural decoration. Der. Our word comes from the French *teint*, a slight colour distinct from the general colour used. This is derived from the Latin *tingere*, to dye or give colour to. Our word "tinge" comes from this, which is also used as a synonym for tint. Syn. Fr. for "tint," *Teinte*—pron. taiht; Ger. *Tinte*—pron. tin-teh; also *Farbe*—pron. fahrr-beh.

Tone, in *Painting*. A term used sometimes as synonymous with tint, shade, or tinge, but having as its more special meaning the depth or fulness of a given colour which

is being used, as a "lighter tone" or a "darker tone," or a colour more or less "pronounced"—to borrow a term derived from the French, *prononcée* (proh-nohn-say), now frequently employed by us—that is, decided. Thus a lighter tone is equivalent to a lighter shade. Der. Our word "tone" is borrowed from the art of music, the term indicating the depth of a musical sound or the converse, or the particular sound of a certain instrument, as the tone of a flute, etc.; and it is derived from the Latin *tonus*, a sound, and this from the Greek *tonos*. Syn. Fr. for "tone," *Ton*—pron. tohn; Ger. *Ton*—pron. tone.

Tongue, in *Joinery*. A projecting part left on or cut out of a piece of wood, or fixed thereto, projecting from it, the purpose of which is to be inserted into a hollow part or indentation of corresponding form, so that the two pieces can be joined together. The one piece is said to be "tongued," the other "grooved" or "ploughed." Der. Our word tongue is from the Old English *tunge*, the organ of speech in man. Syn. Fr. *Langquette*—pron. lahn-gett; also *Coulisse*—pron. kooheece; Ger. *Zunge*—pron. tzoohng-eh; also *Spund*—pron. shpoohnt. Syn. Fr. for "tongued," *Langueté*—pron. lahn-gett-eh; Ger. *Gezüngelt*—pron. geh-tsuehng-ellt. Syn. Fr. for "to tongue" a piece, *Languetter*—pron. lahn-gett-eh; also *Faire une languette*.

Tools, used in *Building Construction*, are as numerous as they are varied in character, from the simplest form which a tool takes, such as a tamping bar or a spade, up to the most elaborate and complicated wood-cutting and working or stone-cutting machine. Tools are divided into two great classes—hand tools and machine tools. By far the greatest number range themselves under the first class, comparatively few being found under the second—a marked contrast to the condition of machine or mechanical construction, in which machine tools are met with in great numbers. Der. Our word tool is from the Old English *tol*, a hand implement used in constructive work, and this from *tawil* or *tawean*, to form, prepare, or construct. Syn. Fr. for "tool," *Outil*—pron. ooh-teel; Ger. *Werkzeug*—pron. vairrk-tsoig, or *Geräth*—pron. gerr-ate. Syn. Fr. for "stock of tools," *Outilsage*—pron. ooh-teel-ajh; Ger. *Rüstwerkzeug* (from *rüsten*, to prepare or arrange for)—pron. rüesst-vairrk-tsoig; also *Ausstattung von Werkzeug* (from *ausstatten*, to establish)—pron. ows-staht-toong, vairrk-tsoig. Syn. Fr. for "to supply with tools," *Outilier*—pron. ooh-teel-yea; Ger. *mit Werkzeug ausrüsten*. Syn. Fr. for "tool chest," *Caisseton à outils*—pron. kaiss-tohn; Ger. *Werkzeugkasten*—pron. kahss-tann.

Tooth, in *Construction and Architecture*. A term used in construction to indicate a certain form or a particular kind of work, as

the tooth of a piece of timber; a synonym sometimes used for "tongue," as to tooth stone. *Der.* Our word tooth is from the Old English *toth*, one of the small bones of the jaws. *Syn. Fr.* for tooth, *Dent*—pron. dahn; *Ger. Zahn*—pron. tsahn. *Syn. Fr.* for "toothed ornament" in architecture, or zigzag, or rather a saw-edged-like form of decorating parts, such as moldings and the like, *Ornement à dent de scie*, saw-tooth ornament—pron. orr-ne-mahn ah dahn deh see; *Ger. Spitzzahnzierde*—i.e. pointed tooth ornament—pron. shpits-tsahn-tseer-deh. *Syn. Fr.* for "to tooth a stone"—i.e. to pick or tool the surface to give it a toothed-like appearance, or a series of projecting points, a species of rusticated work, *Piquer une pierre*—pron. pee-kay uuhn pee-air, or *Greneler une pierre*—pron. grenn-eh-lay oohn pee-air, or *Appareiller une pierre par la grenelle*—pron. ah-pahrr-ale-yeh uuhn pee-air pahrr lah grenn-ell; *Ger. Stein mit dem Grinal bearbeiten*. *Syn. Fr.* for "toothing," *Pierre d'attente*—pron. pee-airr daht-tahnt; also *Arrachement d'une pierre*—pron. ah-rahsh-mahn duehn pee-airr, or simply *Arrachement*; *Ger. Verzahnung*—pron. ferr-tsahn-oong; also *Steinkrönung*—pron. stine-kroeh-noong.

Top Beam, in Carpentry. A synonym comparatively seldom used now, for "collar beam," the horizontal bar connecting the rafters of a roof in place of a tie-beam (see Collar Beam). *Syn. Fr. Faux-entail*—pron. foze-ahn-trahil; *Ger. Hauptbalken*, or *Hahnbalken*—i.e. "cock beam"—pron. hahn-bahl-ken; also *Katzenbalken*—i.e. "cat beam"—pron. kaht-senn-bahl-ken.

Top, in Construction. A term frequently used to indicate the upper part or crown of a body. Our word is identical in spelling and meaning with the Old English word. *Syn. Fr.* for "top" generally in a constructive sense, *Couronnement*—pron. kooh-ronn-mahn; also *Chapeau*—pron. shah-poh; also *Haut* or *Sommet*—pron. hoh, sohm-eh; also *Faite* or *Comble*—pron. fate, cohm-bell; *Ger. Giebel*—pron. gee-bel; also *Krone* or *Kappe* or *Gipfel*—pron. kroh-neh, kahp-pay, gip-fell; also *Deckel*—pron. deck-ell. *Syn. Fr.* for "chimney top," *Chapeau de cheminée*—pron. shah-poh deuh cheu-mee-nay; also *Capote*—pron. kah-pot, or *Chapiteau d'une cheminée*—pron. shah-pee-toh duuhn cheu-mee-nay, or simply *Chapiteau*; *Ger. Schornsteinkappe*—pron. shorn-stine-kapp-peh. *Syn. Fr.* for "roof top," *Sommet du comble*—pron. somm-may duuh kohm-bell, or *Toiture*—pron. twah-tuehrr; *Ger. Dachgipfel*—pron. dach-gip-fell, or *Dachkrone*—pron. kroh-neh. *Syn. Fr.* for "top or cap of a gable," *Poinçon*—pwahn-sonn; *Ger. Giebelkrone*—pron. gee-bell-kroh-neh, or *Giebelspitze*—pron. spit-seh. *Syn. Fr.* for "top of the stairs" (a synonym for

"stair head") *Trapan*—pron. trah-pan; *Ger. Treppenkopfende*—pron. trepp-enn-kopff-enn-deh; also *Treppenaustritt*—pron. -owss-tritt. *Syn. Fr.* for "top of a wall," *Marzelle*—pron. mahr-zell; also *Couronnement d'un mur*, or *Chapeau d'un mur*, or *Tête d'un mur*—pron. tett deuh muur; *Ger. Mauerhut*—pron. mow-err-hoot. *Syn. Fr.* for "top stone," *Haut pierre*—pron. hoh pee-airr; for "top stone of an arch or of a vault," *Clef d'un arc* or *de voûte*—pron. klav deuhn arrc, deh voot; *Ger. Gewölbabschluss Stein* (vault)—pron. geh-voell-beh-shlooss stine, or *Bogenschluss Stein* (arch)—pron. boh-genn. *Syn. Fr.* for "top rail," the highest or uppermost rail or piece in a framing, *Bois de faitage*—pron. bwah deh fay-tahj; *Ger. Hauptbalken*—pron. howpt-bahl-kenn; also *Giebelbalken* (gable beam)—pron. gee-bell.

Torsel, in Carpentry. A piece of wood laid horizontally on a wall to afford a bearing surface for a beam; synonymous with Template, wall-plate (which see).

Torus, in Mouldings. A moulding the profile of which is rounded, in some cases nearly round, in others precisely a semi-circle. It is, in fact, the half of a round bead. *Syn. Fr. Tore*—pron. torr; also *Demi-rond*—pron. deuh-mee-rohnd; also *Boudin moulure*—literally "a pudding moulding," referring to a rolled-up cylindrical-shaped pudding—pron. booh-dahn moo-luuhrr; *Ger. Rundgesims*—pron. roohnd-geh-zimss. *Syn. Fr.* for "a large torus," *Toron*—pron. torr-on; *Ger. grosses Gesims*.

Tower, in Domestic Architecture. That part of a building, either square or circular in plan or horizontal section, which rises above the general level of the structure. It is generally finished at top with a battlemented or a pierced parapet, and may be used as a prospect tower, or inclose within it small rooms. *Syn. Fr.* for "tower" generally, *Tour*—pron. toohr; *Ger. Thurm*—pron. toohrm. *Syn. Fr.* for "a castellated tower," *Tour trelle*—pron. toohr toh-rell; *Ger. Thurm mit Eckthürmchen*—pron. mit ekk-tuehrm-chen.

Trace. A term used in Construction in connection with various work, as the tracing out of a plan, or marking out the position of a building on the site, or the like. *Syn. Fr.* for "to trace out a line on timber," *Tracer une ligne sur bois*—pron. trah-say uehn leeng suehr bwah; also *Marquer le bois avec une ligne*—pron. marr-kay leh bwah ah-veck uehn leeng, or simply *Marquer du bois*; *Ger. eine Leine auf Holz markieren*—pron. i-neh li-neh owff hollts marr-kee-ren. *Syn. Fr.* for "to trace out a plan on the site," *Tracer une plan en place*—pron. trahsay uehn plahn ahn plahss; *Ger. einen Riss auf (or über) die Lage (or Baugrund) markieren*—pron. ne-enn riss owff dare lah-geh (bough-

ground) marr-keee-renn. "To trace a drawing," in architectural and building drawing, is to superpose and secure upon a drawing a sheet of "tracing paper" or "tracing cloth," and draw over with pencil or ink all the lines shown through the transparent paper or cloth, thus making a "copy," or tracing as it is technically called, of the original drawing. Syn. Fr. *Calquer un dessin*—pron. kahl-kay euhn dess-aihn, or simply *Calquer*; also *Contre-tirer les lignes d'un dessin*—pron. kohn-terr-teer-eh lay leeng deuhn dess-aihn; Ger. *die Linien vom Riss durchbauschen*—pron. dee leen-yenn fom riss doorch-bough-shen. Syn. Fr. for "tracing paper," *Papier huilé* ("oiled paper")—pron. pah-pee-eh weel-eh, or *Papier ciré* ("waxed paper")—pron. seer-eh; also *Papier à calquer*—pron. ah kahl-kay; Ger. *Oelpapier*—pron. oeil-pah-peerr; also *Wachspapier*—pron. vahx-pah-peerr. Tracing paper is made by treating what is called "tissue" or "silk" paper—a paper of extreme thinness or fineness—with a variety of substances, of which the base is an oil of some kind or another. The French and German names indicate respectively oiled and waxed paper. As tracing papers of even the best quality are apt to be easily torn, and those of inferior to be both easily broken or cracked and split and torn; tracings designed to be frequently referred to and handled, such as those of working drawings, are made or taken upon sheets of linen of a very fine quality, specially prepared to make them transparent, and yet possessing a surface capable of taking on ink and colour without "running" or "smearing." Syn. Fr. for "tracing cloth," *Toile à calquer*—pron. twahl ah kahl-kay; Ger. *Rissöhlleinwand*—pron. riss-öel-line-vant; also *Risswachslleinwand*. Syn. Fr. for "tracer," *Tire-ligne*—pron. teer-leeng; Ger. *Vorzeichner*—pron. forr-tsiche-nerr. Syn. Fr. for "tracing of a drawing," *Dessin calqué*—pron. dess-aihn kahl-kay; Ger. *Durchzeichnung eines Risses*—pron. doorsh-tziche-noong ine-ess riss-ess.

Tracery, in Decorative Work. A term used to indicate designs or patterns of ornamental work composed of lines chiefly curved, or straight and curved in combination. A term also in architecture, chiefly Gothic, to indicate the carved ornamental work, of which the stonework of the window heads—markedly those in the Decorated curvilinear—are fine examples. Der. Our word "trace" comes from the French *tracer*, to draw a line of any kind, or to draw a design by drawing lines through points determined by the eye at will, or previously set down, and this from the Latin *trahere, tractum*, to draw. Syn. Fr. for "architectural (window) tracery," *Fenêtre tracé*—pron. fenn-ett-err trah-say; also *Découpure*—pron. day-koop-uehr; also *Réseau*—pron. ray-soh;

Ger. *Fensterschnörkelwerk*—*Schnörkel*, a scroll (which see)—pron. fenn-sterr-shnoerr-kell-vairrk.

Trammel, in Tools and Appliances. A synonym for beam compasses. A long piece or bar of wood provided with two points—one of which is fixed, the other movable—by which large circles or arcs of circles can be described, the fixed point serving as a centre or pivot round which the movable point is moved as desired. The distance between the two points defines the length of the radius of circle or arc described. A simple form of trammel is a thin, narrow bar of wood, of any length as desired, two sprig bits or awls passing through the bar and projecting beyond the under surface; one forms the centre, the other the describing or tracing point. Syn. Fr. *Crémaillère*—pron. kray-mahil-yairr; also *Entrave*—pron. aln-trahv; Ger. *Spannen-vorzeichner*—pron. spann-enn-fore-tsiche-nerr.

Transept, in Architecture. That part of a church which is cruciform in plan, which crosses the central part or "nave" at right angles—a cross aisle, passage. Der. From the Latin *trans*, and *septum*, an enclosure, an enclosed space transverse to another. Syn. Fr. *Transept*—pron. trahn-sept; also *Nef transversale*—pron. neff trahns-vairr-sahl; also *Bas côté* (aisle lower side) *croisée*—pron. bah koh-tay krwah-zay, or simply *Croisée*; Ger. *Kreuzschiff*—pron. kroits-shiff; also *Querseite*, square side—pron. kwairr-zite-eh.

Transom, in Masonry and Carpentry. A block or piece of stone of the same dimensions as the mullion of a window, crossing it at right angles somewhere at a point one-third below the window top or head of its whole vertical height. The transom thus divides horizontally the window height into two parts or compartments. It is a marked feature in Gothic windows, and in domestic architecture in the windows of the Domestic Gothic, Tudor, Elizabethan, and Jacobin styles. The word is evidently an abbreviation of trans-summer or sommer—that is, a cross beam. Syn. Fr. for "transom of a window," *Traverse d'une fenêtre*—pron. trah-verss duehn fen-nay-terr, or simply *Travers*; also *Renard*—pron. renn-ahr; Ger. *Querbalken eines Fensters*—pron. quairrbahl-kenn i-ness fen-sterr; also *Fensterstab*. Syn. Fr. for "iron transom or crossbar of a window," *Vitrière traverse en fer d'une fenêtre*—pron. vee-tree-airr trah-verss ahn fairr duehn fen-nay-terr. Syn. Fr. for a "transomed" or a "transom window," *Fenêtre traversée*—pron. fen-nay-terr trah-vairr-say, or *Fenêtre gisante* (lying)—pron. jee-zahn; Ger. *Querfenster*—pron. quairrfenn-sterr.

Trap, in Construction. A contrivance by

which fluids, as of water in a pipe, or gases or hot air in a tube, are arrested or stopped in their flow, or the passage of a person passing from one place to another through a passage is arrested. Our word is an abbreviation of the Old English *trappe*. Syn. Fr. for the "trap of a stove" (closed), synonymous with "damper," *Clef d'un tuyau d'un poêle*—pron. klay deuhn twee-oh deuhn poh-ell; Ger. *Ofenklappe*—pron. oh-fenn-klahp-peh. Syn. Fr. for "stench trap," a contrivance in house sewage work for arresting the upward flow of sewage gases, and preventing them from passing from the drain or sewer into the house interior, *Soupape de dégagement*—pron. sooh-pahp deh day-gahj-mahn; Ger. *Schliessklappe*—pron. see-lenn-shleece-klahp-peh.

Traveller, in Construction. The abbreviated form of "travelling crane" used in lifting heavy blocks of stone and other building materials and transporting them from one position to another in the stone or timber-yard or wharf, or the vicinity of a building which is being erected. The crane crab or lifting gear is secured to a platform which spans a part of the yard or building, and is placed at a considerable height above the ground or building level. This platform is carried by wheels which run on rails fixed to the upper surface of beams which run along each side of the working space commanded by the travelling crane, the beams being supported by vertical posts or beams placed at intervals at each side of the working space. By an ingenious arrangement of mechanism, the platform, with its lifting crane, can be made to run or move along the rails on the beams; while at the same time the crane or lifting gear can be made to run along its platform in a direction transversely or at right angles to the side rails. A command of the working space in two directions, across and along its length, is thus secured. In large works the lifting and moving gear are worked by steam engine; in smaller manual labour is employed. Syn. Fr. for "traveller" or "travelling crane," *Grue locomobile*—pron. grooh loh-koh-moh-beel; or *Grue roulante*—pron. grooh rooh-lahnt; Ger. *Rollkrahn*—pron. roll-krahn (roll pron. like doll); also *Walzenkrahn* (*Walze*, a roller, *walzen*, rolling)—pron. vahlitz-enn-krahn.

Traverse, in Construction. A term sometimes used to denote a piece of wood placed transversely or across, and thus synonymous with "transom." Syn. Fr. (in carpentry and joinery) *Traverse*—pron. trah-verss; also *Potence*—pron. poh-tahnce; also *Traverse en bois entre les murs*—pron. trah-verss ahn bwah ahn-terr lay muehr; Ger. *Schränkbalken* (*Schranke*, a bar)—pron. shrenk-bahl-kenn; also *Tragbalken*, or simply *Träger* (beam or carrier)—pron.

trahg. In architecture the term is sometimes employed to denote a way or passage across a space, as by a gallery. Syn. Fr. in this sense, *Galerie*—pron. gah-leh-ree; Ger. *Gallerie*—pron. gahl-err-ee.

Tread of a Stair, in Joinery. That part of a step upon which the foot is placed in ascending and descending the staircase. A breadth of nine inches is the most commonly adopted, being found the most convenient, in conjunction with a "riser" (which see) of seven inches in height. In common staircasing work, the outside edge of the tread is flush with its vertical face. In better-class work, the tread projects before the face of tread, and is rounded-off, or formed like a half-bead, or moulded with an ogee pattern. Der. Our word "tread" comes from the Old English *tredan*, to set the foot down, to walk upon. Syn. Fr. for "tread of a stair," *Marche*—pron. marsh; also *Giron*—pron. jee-rohn; also *Montant d'un escalier*—pron. mohn-tahn duhn ess-kah-lee-eh; Ger. *Treppentritt*—pron. trepp-enn-tritt, or *Treppenauftritt*—pron. trepp-enn-owf-tritt, or *Treppenstufe* (*Stufe*, step)—pron. trepp-enn-stooth-feh.

Treenails, in Carpentry. Cylindrical pieces of wood or pins used to connect timbers with each other, these being previously bored with holes a little less than the diameter of the treenail. Serving as a nail, the derivation of the word is easily understood—simply a nail or pin made out of tree-wood. Syn. Fr. *Cheville*—pron. sheu-veel; also *Gougeon*—pron. gooh-jaohn; also *Goujon*—pron. gooh-john; Ger. *Döbel*—pron. doeb-ell; also *Dübel*—pron. dooh-bell. Syn. Fr. for "to treenail," fix or secure by wood pins, *Cheviller*—pron. sheh-veal-yea; also *Cheviller ensemble*—pron. ahn-sahm-bell; Ger. *mit Holznägeln befestigen*—pron. mit holts-nay-geln beh-fess-tig-enn.

Tree Timber, in Materials. A synonym for "round timber." The term is with us practically applied only to the timber of trees grown in our country, and cut down for various purposes—hence the other synonym "home grown" timber. Der. The word "tree" comes from the Old English *treow*, denoting perennial plant, generally deciduous—that is, shedding its leaves every season, and increasing its size by annual deposits of woody matter termed technically "rings." Our timber trees are chiefly hardwood trees, such as oak, elm, beech, etc. Syn. Fr. for "tree," *Arbre*—pron. ahr-berr; Ger. *Baum*—pron. bowm. Syn. Fr. for "felled trees" or "round timber," *Arbres gisants*—pron. ahr-berr gee-sahn; Ger. *gefällter Baum*—pron. geh-fell-terr bowm. Syn. Fr. for "standing trees," *Arbres en état*—pron. ahr-berrs ahn eh-tahn, or *Bois en état*; Ger. *stehender Baum*—pron. stay-en-derr-bowm.

Trefoil, in *Architectural Design*. An ornament so called from its resemblance to the trefoil or three-leaved clover. *Der.* From the Latin words *tres*, three, and *folium*, a leaf; or it is a corruption of the French words *trois*, three, and *feuille*, leaf, just as tinfoil is a corruption of *étain* (tin) *feuille* (leaf). Syn. Fr. *Trèfle* (clover)—pron. tray-fel; also *Trilobe* (three-lobed)—pron. tree-loab; Ger. *Dreiblatt* (three leaves)—pron. dry-blaht; also *Kleeblatt*—pron. kleh-blaht. Syn. Fr. for "trefoil arch," the arch of three centres, each centre being at the point of an equilateral triangle, *Arc de trois cintres*—pron. arrk deh trwah saihn-terrs; also *Arc en trèfle*, or *Arc triflé*—pron. arrk ahn tray-fell, tray-fay; also *Arc trilobé*—pron. tree-loh-bay; Ger. *Bogen mit drei Centren*—pron. boh-genn mit dry tsen-trenn; also *Mittelpunkten* (middle point, centre)—pron. mit-tell-poonkt-enn; also *Kleeblattbogen*.

Trellis Work, in *Construction*. Fences, screens, light balustrades, or enclosures for garden structures, as kiosks, arbours, etc., made of thin, narrow, flat wooden bars or laths, or of flat iron bands or rods placed crossways or reticulated, so as to form a series of open parts or apertures between the solid bars, either diamond-shaped or lozenge-shaped or squares set diagonally. *Der.* From the French *treillis*, and this from the Latin *trichila*, a garden arbour, a bower or summer-house. Synonyms "lattice work" or "cross-bar work." Syn. Fr. *Treillis*—pron. trail-ye; Ger. *Gitter* (cross-bar lattice). Syn. Fr. for "trellis work," *Treillage*—pron. trail-yahj; also *Entrelacée* (from *lacer*, to lace)—pron. ahn-terr-lah-say; Ger. *Gitterwerk*—pron. git-terr-vairrk. Syn. Fr. for "trellis door," *Porte en treillage*; Ger. *Gitterwerkthür*. Syn. Fr. for "trellis window," *Feûtre en treillage*; Ger. *Gitterwerkfenster*. Syn. Fr. for "trellis arch," in garden work, *Arc en treillage*; Ger. *Bogengitterwerk*.

Trench, in *Foundation Work*. The cutting or excavation made in the soil or ground of the site of a house or other structure to receive the foundation courses of the walls. Trenches are generally rectangular in cross-section, bottom square to the sides; but the sides are sometimes made to slope inwards, as in drainage work, as the cutting proceeds. In large works and in certain soils or sites the sides of the trenches are scarped or cut in tables, or what may be called small terraces. *Der.* Our word comes from the French *trancher*, to cut or dig, or to cut in digging. Syn. Fr. for "trench," *Tranchée*—pron. trahn-shay; also *Fossé*—pron. foss-eh; Ger. *Durchschnitt*—pron. doorsh-shnit; also *Graben*—pron. grah-benn. Syn. Fr. for "foundation trench," *Tranchée* or *Fossé* or *Creux* (*creux*, hollow, deep) *pour le fondement*—pron. kreugh poorr leh fohn-deh-mahn. Syn. Fr. for "trench for a drainpipe,"

Tranchée or *Fossé pour une égouttoir*—pron. trahn-shay or foss-eh poorr uhn egg-ooh-t-wahr; Ger. *Abzugsgraben*—pron. abbb-tsoogs-grah-benn.

Trestle, in *Construction* (pron. tress-ell). A framework of timber, with outspreading supports or legs, used to support timber when being sawn up or otherwise worked. A large timber or wood rack to hold or retain planks and cut wood in place, these being made to slope inwards, their lower ends resting on the ground, their upper passing into the spaces between the rack bars,—an arrangement in timber yards to keep timber ready for sale, and to aid its natural seasoning. A synonym often used is "horse." Syn. Fr. *Chevalet* (a diminutive of *cheval*, a horse)—pron. sheh-vahl-ay; also *Trâteau*—pron. tray-foh; also *Baudet*—pron. boh-day; also *Chèvre*—pron. shay-ver; Ger. *Bock*—pron. bok; also *Gestell*—pron. geh-stell; also *Tischgestell*—pron. tish-geh-stell. Syn. Fr. for "carpenter's trestle," *Chevalet de scieur*—pron. sheh-vahl-ay deh see-euhr, or *Chevalet de sciage*—pron. see-ahj; Ger. *Holzbock* or *Holzgestell*; also *Sägegestell* or *Sägebock*; also *Zimmermannsbock*—pron. tsim-mer-mannsbok.

Trim, To, in *Construction*. A term used synonymous with to dress or prepare or adjust a body, as a block of stone, a piece of timber, trim the garden walks, etc. *Der.* Our word comes from the Old English *trymian*, *trimman*, to set or put in order, to adjust. Syn. Fr. for "trim"—i.e. the condition of being in good order or well adjusted, as a trim block of stone, a trim beam, or piece of wood—*En bon état*—pron. ahn bonn ate-ah; also *Bien conditionné*—pron. bee-ahn kohn-dee-see-on-eh, or *Bien fait*—pron. fay, or *Bien mis*—pron. mee, or *Bien tourné*—pron. toohr-nay; also *Paré*—pron. parr-eh; Ger. *Hübsch*—pron. huebsh; also *Schön*—pron. shoen; also *Nett*; also *Geputzt*—pron. geh-pootzt. Syn. Fr. for "to trim," *Ajuster*—pron. ah-jooohss-tay; also *Tailler*—pron. tahl-yea; also *Garnir*—pron. garr-neerr; also *Mettre en bon état*—pron. mett-err ahn bonn ate-ah; also *Dresser*—pron. dres-say; Ger. *Schmücken*—pron. shmuek-ken; also *Putzen*—pron. pooht-senn; also *Besetzen*—pron. beh-zettsenn; also *Ausrüsten*—pron. owss-ruce-tenn. Syn. Fr. for "trimming wood," etc., *Arrangement du bois*—pron. ah-ranjh-mahn duuh bwah, or *Achèvement*—pron. ah-shave-mahn, or *Ajustement*—pron. ah-jooohst-mahn, or *Parément*—pron. pahr-mahn; Ger. *Putzen des Holzes*—pron. pootz-enn dess holltses, or *Schmückung*—pron. shmuek-oong. Syn. Fr. for "trimmed wood," etc., *Bois achevé* (bwahze ah-shev-v-eh), or *bien ajusté* (bee-ahn ah-jooohs-tay), or *bien conditionné*; Ger. *Geputztes*, or *hübsch gemachtes Holz*—pron. geh-

poots-tess, or huepsh geh-maehates Hollts. A piece is said to be "trimmed" when it is cut or fitted between parts previously made.

Trimmer Arch, in Bricklaying. The flat scheme arch, brick on edge deep, which fills in the void space left opposite a fireplace, formed by the "trimmer joists" (which see) at the side, and the "trimmer" or "trimmer beam" (which see) at the front. The office of this arch is not only to carry the hearthstone, but to avoid all chances of fire arising from an overheated hearthstone, as this under the arrangement does not come in contact with nor is placed upon wood. Syn. Fr. for "chimney trimmer arch," *Arc d'une bande de trémie*; Ger. Wechsel- (or Kraft-) balkenbogen.

Trimmer, or Trimmer Beam, in Carpentry. The term used to indicate a beam which carries other beams—these being tenoned into the trimmer and borne by it in place of the walls. Trimmer beams are used in cases where the run of other beams have to be stopped short of a wall which would otherwise be carried on to and be supported by the walls,—the object being to make a void space in the floor, as the space for the well-hole of a staircase, or that made before each fireplace. In the latter case, as it is dangerous to carry the joists of a floor up to, and resting upon or built into the walls behind the fireplace, a space is left in front of it, which is covered by the hearthstone. This rests upon a brick arch called a trimmer arch (which see above). The space here left in the floor is made by tenoning a cross-beam at a point as distant from the wall at which the fireplace is made as is required for the hearthstone, into the two last complete flooring joists which are carried from wall to wall, and which bound the space or hearthstone on each side, and which side beams or joists are called trimmer joists. The cross piece is called the "trimmer" or "trimmer beam," and its length, corresponding to that of the hearthstone, is such that the ordinary joists of the floor can be so spaced and tenoned or jointed into it, that the intervals between them will be the same as those between the other joists of the floor. Syn. Fr. for "trimmer beam" or "trimmer," *Linqoir*—pron. lain-swahr; also *Travon*—pron. trah-vohn; also *Trémie*—pron. tray-mee-on; also *Latéraire*—pron. lah-tare-airr; also *Poutre de force*—pron. pooh-terr day forss; Ger. Wechselbalken (from *wechseln*, to change—that is, the condition of the beams is changed as above described)—pron. vekk-sell-bahl-kenn; also *Kraftbalken*, *Trumm-balken*, or *Tragebalken*—pron. trah-ge-bahl-kenn. Syn. Fr. for "chimney trimmer," *Poutre de force*; also *Linqoir d'une cheminée*; also *Poutre* or *Bande de trémie*—pron. bahnd-deh tray-mee; Ger. Kaminwechselbalken.

Trimming Joists, in Carpentry. The joists placed at the side of the open space or void made in a floor as described under last term. As these carry the interrupted joists which stop short at the beginning of the void, as well as the trimmer or trimmer beam (see above), they are made stronger than the ordinary or other joists in the floor, and this in proportion to the number of interrupted or short joists they have to carry or support. Syn. Fr. for "trimming joist," *Solive à poutre*—pron. soh-leeve ah pooh-terr, or *Solive enchevêtrée*—pron. ahn shevv-ate-tray, or simply *Chevêtre*—pron. shevv-ate-err; also *Solive d'enchevêtre*—pron. ahn-shevv-ate-roohr; Ger. Wechselholztragebalken—pron. vekk-sell-hollts-trah-ge-bahl-kenn; also *Stichbalkenwechselholz*—pron. stich-bahl-kenn-vekk-sell-holtz.

Trowel, in Tools and Appliances in Building Construction. A hand tool used by masons and bricklayers in lifting, laying, and working mortar in the setting or laying of bricks and stones. It consists of a thin, flat steel blade, heart-shaped, but with an extended point at one extremity, and at the other a double-kneed or bent-up tail or fang, sharp-pointed, which is passed into and secured to the wooden handle by which the trowel is held and manipulated by having the tail or fang bent upwards at the end of blade in order to meet the handle. This latter is raised a few inches above the level of the blade, and thus the operation of spreading out the mortar upon a flat surface is quickly and certainly done, which would not be the case if the handle were in a line with the surface of blade. Der. Our word comes from one of the French synonyms for the tool, *Truelle*—pron. trooh-ell; Ger. *Kelle*—pron. kell-eh; or *Mauerkelle*—pron. mower-kell-eh. Syn. Fr. for "plasterer's trowel," *Platoner*—pron. plah-tonn-eh; also *Platronir*—pron. plah-troh-neer; Ger. *Kalkgypskelle* (or simply *Gypskelle*)—pron. kalk-gyps-kell-eh. Syn. Fr. for "trowel for pointing the joints of masonry or brick-laying," *Rejointoyeur*—pron. ray-jwahng-tway-yeuhr; Ger. *Scharnierkelle*—pron. sharr-neerr-kell-eh; or *Gewindekelle*—pron. gay-veen-day-kell-eh. Syn. Fr. for "plasterer's trowel board," *Taloche*—pron. tah-losh; Ger. *Reibschait*—pron. ribe-shite.

True—Truening, in Construction. Terms used to indicate that pieces of work are executed, set or fixed up correctly, and the act of setting bodies correctly. Der. The word true comes from the Old English *treowe*, to be depended upon, to be faithful, to trust. If a body, as a beam, is "worked true" or "truly worked," or be "set truly," and is of sufficient strength, it may be trusted in to do its duty or fulfil its function. Syn. Fr. for "to set or make true," *Ajuster*—pron. ah-jooss-tay; Ger. *Richtig*

machen—i.e. to make right—pron. rich-tig mach-en.

Truncated Roof, in Carpentry. A span or hip roof, the highest or angular part of which is cut off at a varying distance from the apex or ridge, so as to form a flat part or platform in the centre of the building which the roof covers; hence called also a "platform roof." Syn. Fr. *Toiture* or *Comble tronqué* or *coupé*—pron. twah-tuehr or kohm-bell trong-kay or koo-pay; Ger. *Dach* or *ein verstümmeltes Dach*—pron. fer-stuem-mel-tes-sach.

Truss, in Carpentry (see Roof). The triangular arrangement of the timbers of a roof—applicable also to other kinds of framing, as bridges and the like—designed to lessen or diminish the outward thrust upon the walls, resolving this lateral pressure or thrust, which the walls are least, into a vertical or downward pressure, which they are best calculated to resist. The simplest form of a truss for a roof is a collar-beam roof, in which the rafters or inclined pieces are tied together by a horizontal piece at or about a level equal to one-third or one-half of the height or rise of roof. The next in range of completeness, and which constitutes a true truss, is the "king-post roof," in which the rafters butt at their lower ends, at the foot of the vertical post called the king-post, and in which they are jointed or secured on a horizontal beam, called the tie-beam, which rests on the walls or wall-plate built into the wall at each side. The vertical post, called the king-post, connects the head of rafters with the tie-beam, into which the foot of king-post is jointed or to which it is secured. The principle of the truss is the transforming of a rectangular framing, the four pieces of which are jointed or secured together into the ends, and which is the weakest form of framing, into the strongest form by making the rectangular space with the framing into two triangles by adding a fifth or a diagonal piece stretching from one corner to the other, or into a series of triangles by adding a sixth piece or a second diagonal crossing the first. The triangular form is the strongest possible arrangement of timber or of iron framing, and all well-designed framework resolves itself into a series of triangles. *Der.* Curiously enough, from the Latin *trussa*, or the French *trousse*, a bunch or mass of straw or hay bound together with a band, generally of the same material, which binds or ties the whole together, as a well-designed roof-truss binds the whole of its members together. Another derivation is given, tracing the word to the Italian *torciare*, to twist, to tie together. Syn. Fr. for "roof truss," *Ferme*—pron. fairm, or more precisely *Les poutres d'un comble* or *d'une toiture*—pron. lay pooh-terr duuhn kohm-bell or twah-tuehr; also *Ferme*

triangulaire d'un comble—pron. fairrm tree-ahn-gue-lair duuhn kohm-bell; Ger. *Dachbalkenwerk*—pron. dach-bahl-kenn-vairrk; also *Bindesparren* or *Bindebalken*—pron. bin-deh-spar-renn or -bahl-kenn. Syn. Fr. for "small truss," as that for the head or triangular termination of a "dormer" or (side roof) window (which see), *Fermette*—pron. fairr-mett; Ger. *kleine Dachbindesparren für ein Fenster*—pron. kline-eh dach-bin-deh-spar-renn fuerr ine fenn-sterr. Syn. Fr. for a "curb or mansard roof-truss," *Ferme de mansard*—pron. fairrm deh mahn-sahr; also *Ferme brisée*—pron. breeze-eh; Ger. *Dachbindebalken eines französischen Daches* or *Mansardendaches*—pron. dach-bin-deh-bahl-kenn ine-ess frann-tsoeh-zish-en dach-ess, or mahn-sahr-denn-dach-es. Syn. Fr. for a "trussed girder or lattice beam," *Ferme sur longétons avec contre-fiches*—pron. fairrm suehr longg-tohngs ah-veck cohn-terr-feesh; Ger. *Springbalken und Sparrenwerk*. Syn. Fr. for a "trussed iron beam," *Poutre en fer armée*—pron. pooh-terr ahn fairr ahr-may; Ger. *versprengter Eisenbalken*—pron. ferr-sprengt-er ize-enn-bahl-kenn. Syn. Fr. for "truss rod (iron)," *Tirant en fer*—pron. tee-rahn ahn fairr, or *d'armature*—pron. dahr-mah-tuehr; Ger. *Zugseisenbolzen*—pron. tsoog-ize-enn-boll-tsenn. Syn. Fr. for a "timber beam trussed with flitches of plate-iron," *Poutre en bois armée par plaques de fer*—pron. pooh-terr ahng bwah ahr-may par plakh deh fairr; Ger. *Holzbalken mit Flach-(or Platt-)eisen versprengt*—pron. holts-bahl-kenn mit flach-ize-enn ferr-sprengt.

Try, To—Trying, in Construction. Terms used to indicate or ascertain the accuracy with which work is executed or set up; synonymous with "to test" or "testing." *Der.* Our word try comes from the Latin *terere, tritum*, to rub together, or from the French *trier*, to pick out from, to select—both meaning the testing of objects or substances. Syn. Fr. for "to try," *Eprouver*—pron. ay-proo-vay; Ger. *Probiren*—pron. proh-beer-en; also *Prüfen*—pron. prueh-fen. Syn. Fr. for "trying," *Eprouvage*—pron. eh-proov-ahj; Ger. *die* or *eine Probe machen*—pron. dee or ine-eh proh-beh mach-en.

Tubbing, in Carpentry. A synonym sometimes used for the lining of wells, shafts, or other excavations, with timber lining or planking. Syn. Fr. for "to tub a well," *Revêtir un puits avec du bois*—pron. revv-ett-er uuhn pwee ah-veck duuh bwah; also *Cuveler un puits*—pron. kuehvv-lay; also *Garnir*—pron. garr-neer; Ger. *einen Schacht verzimmern*—pron. ine-en schacht ferr-tsim-mairn; also *einen Schacht mit Holz auskleiden*—pron. mit holts ouss-klide-en. Syn. Fr. for "tubbing of a well," *Cuvelage*—pron. kuehvv-lahj; Ger. *Verzimmern eines Schachtes*—pron. ferr-tsim-mer-oong ine-ess schacht-ess. Syn. Fr. for "a timbered well or

shaft," *Puits cuvelée*—pron. pwée kuuve-lay, or *Puits blindé*—pron. bleehn-day; Ger. *gezimmerter Schacht*—pron. geh-tsimmer-teh shacht. The term is derived from the making of tubs, the face inside of a timbered well or shaft resembling that of a tub. *Der.* The word tub comes from the Old English or Danish *tobbe*, a circular vessel formed with staves bound together with hoops of wood.

Tube, in Construction. A term synonymous with "pipe." *Der.* From the Latin *tubus*, a cylindrical body made hollow to convey water or the like. Syn. Fr. for "tube," *Tuyau*—pron. twee-oh; also *Tube*—pron. tuebh; Ger. *Röhre*—pron. roeh-reh; also simply *Rohr*—pron. roarr. Syn. Fr. for "smoke tube of a stove," *Tuyau d'un poêle*—pron. twee-oh deuhn poe-ail; Ger. *die Ofenröhre*—pron. dee oh-fenn-roeh-reh. Syn. Fr. for "drain tube," *Tuyau de drainage*—pron. twee-oh deh draihn-ahj; Ger. *Drainröhre*. Syn. Fr. for "gas tube," *Tuyau de conduite de gaz*—pron. deh kohn-dweet day gaz; Ger. *Gasrohr* or *-röhre*.

Tuck Pointing, in Bricklaying. That kind of pointing for which "jointing," or "finishing the exterior joints of brickwork," are synonyms, which is done with fine plaster or cement, and brought to a parallel and straight edge by working with the trowel. *Der.* The term apparently is taken from the German word *tuchen* (tooh-chenn), to press or fold in, or thrust in, or *zuchen* (tzooch-kenn), to shrink in—pointing being essentially the pressing in of mortar, plaster, or cement into the open joints left between the bricks. Our phrase "tuck in" is derived from the same word. Syn. Fr. *Jointement à joints tirés avec la truelle*—pron. jwahngt-ahj-mahn-t-ah jwahns teer-ay ah-veck lah trooh-eel; Ger. *Ziegelstein-scharnier* (or *-fuge*) mit *Gypsmörtel* oder *Cement austreichen*—pron. tsee-gell-stine sharr-neerr (fooh-ge) mitt gips-moh-eer-tell oh-derr see-ment owss-striche-en.

Tudor Arch, in Architecture. An arch described from four points as centres—hence called otherwise the four-centred arch. Two of the centres are near to the sides of the opening to be arched over, joining the inner vertical sides of the piers or inside jambs or reveals by small arcs of circles; while from the other two centres, placed lower down, two arcs of circles are described which join the small arcs, and meet in a point in the centre of the opening at some height above them. This form of arch gives somewhat of the form of a true Gothic arch. Syn. Fr. *Arc Tudor*—pron. arrk tuuh-dohr; also *Arc des quatre cintres*—pron. arrk deh kat-ter saihn-terr; Ger. *Tudorbogen*—pron. too-dohr-boh-gen; also *Bogen mit vier Centren*, or *Mittelpunkten*—

pron. boh-gen mit feer senn-tren, mit-tell-poohnk-ten.

Tudor Style, in Architecture. Otherwise called by some the "Jacobin," and which is classed by some writers as one of the styles of Gothic architecture, although they limit its application by applying the term "Domestic Gothic." It has no claim to be classed as a Gothic style, unless it be named, as some high authorities have named it, the "Debased Gothic." The main feature of the style is the change of the sharp-pointed arch for doors and windows into the flat, depressed arches, some of which are almost made up of straight lines, only canted so as to meet in a central point. Syn. Fr. (written or spelt precisely like our words, only in an inverted form) *Style Tudor*—pron. steel tuuh-dohr; Ger. *Tudor Styl*—pron. too-dohr steel.

Tufa or Tuffstone, in Materials. A stone or mineral of various kinds, of volcanic origin, largely obtained in several places on the Continent, as in some of the lateral valleys of the Rhine. It was at one time chiefly, and is at the present day largely, used in the making of hydraulic cements or mortars. Syn. Fr. for "tuffstone," *Pierre de tuf*—pron. pee-air day tuuhf; also *Tuf calcaire*—pron. kahl-kare, or *Tuf volcanique*—pron. vohl-kann-eek, or *Tuf de puzzolane*—pron. deh puzz-oh-lahn, or *Tuf basaltique*—pron. bah-sahl-teek; Ger. *Tuff* or *Taf*- or *Duchstein*—pron. toohf- or taff- or duuhk-stine, also *Basalttuffstein*—pron. bah-sahl-tuuhf-stine; also *vulkanischer Tuffstein*—pron. vull-kann-eesh-err-tuuhf-stine. Syn. Fr. for "tufa," *Meulière*—pron. meuhl-ee-air; Ger. *Mühlentuffstein*—pron. muehl-len-tuuhf-stine.

Tumbling in, in Construction. A synonym for trimmed (which see); fitting in of parts previously cut.

Turn, To, in Joinery and Cabinet Making. A term often used in various departments of work, as to indicate the operation of forming cylindrical and circular bodies in a turning lathe; the act of turning down, as in clinching a nail; that of moving a hinge, as a door; to turn over or turn round, as in reversing or changing the position of a beam or a block of stone. The phrase "turn off" means to stop or arrest, as turn off the gas, water, etc. *Der.* The word turn comes from the Old English *turnan*, to give a cylindrical form to a body, as in a lathe, to change the direction of; or it may have been borrowed from the French *tourner*, meaning the same thing. Syn. Fr. for "to turn in a lathe," *Tourner avec le tour anglais*—pron. toohr-nay ah-veck leh toohr ahn-glai, or *Façonner dans un tour anglais*—pron. fah-sonn-ay dahnz uehn; Ger. *auf einer Drehbank drehen*—pron. owff ine-err dray-bank dray-eenn, or *Drehstlerbank*—pron. drekk-lerr-bank,

or *Drechseln*—pron. drekk-selln. Syn. Fr. for “to turn untrue, out of the truth”—that is, to form a body in the turning lathe not truly cylindrical by properly centring it; if centred off the true, the body will not be “true” (see True), but will have an eccentric motion in the lathe—Syn. Fr. *Fouetter avec le tour anglais*—pron. foh-ett-eh ah-veck leh toohr ahn-glai; Ger. *mit der Drehbank falsch laufen*—pron. mit derr dray-bank fals lowf-fenn. Syn. Fr. for “to turn down or clinch a nail,” *Rebattre un clou*—i.e. strike again, or bend down with a blow—pron. ray-batt-err euhn klooh; Ger. *ein Nageleisen befestigen*—pron. ine nah-gel-ize-enn beh-fess-tig-enn, or *einen Nagel umbiegen*—pron. ine-en nah-gell oom-bee-genn. Syn. Fr. for “to turn over” (a block or beam), *Se retourner*—pron. seh ray-tooehr-nay; also *Abattre*—pron. ah-bah-terr; also *Renverser*—pron. rahn-vairr-say; Ger. *Übertragen*—pron. ueh-berr-trah-gen. Syn. Fr. for “to turn round,” *Turner*—pron. toohr-nay; also *Circuler*—pron. seer-kueh-lay; also *Evoluer*—pron. eh-voll-you-eh; Ger. *Umdrehen*—pron. oohm-dray-enn, or *Umwenden*—pron. oohm-venn-denn; also *auf die andere Seite legen*—pron. owff dee ann-derr-eh zite-eh leh-genn. Syn. Fr. for “to turn off the gas (or water),” etc., *Fermer le robinet de gaz* (or *de l'eau*, etc.)—pron. fairr-may leh roh-been-eh deh gahz (or deh loh); Ger. *Gas ablassen* or *abschliessen*—pron. gass ahb-las-enn, or ahb-shlee-sen; also *die Zapfen* (or *die Hähne* or *Sperrhähne*) *verbinden* or *zudrehen*—pron. dee tsapp-fenn (dee hay-neh, sperr-hay-neh) ferr-bin-denn, or tsoo-dray-enn. Syn. Fr. for “to turn on the gas,” etc., *Ouvrir le robinet de gaz*; Ger. *den Gas* (or *Wasser*, etc.) *hahn aufdrehen*—pron. dae gass (wass-er) hahn owff-dray-enn. Syn. Fr. for “turn-cap of a chimney flue,” *Chape tournante d'un conduit de fumée* (or *d'un tuyau d'une cheminée*)—pron. shahp toohr-nahnt deuhn kohn-dwee deh fueh-may; Ger. *Drehkappe der Feuerröhre*—pron. dray-kahp-peh dare foy-err-roeh-reh.

Turner. The workman who works with the turning lathe. Syn. Fr. *Turneur*—pron. toohr-neuhr; Ger. *Drechsler*—pron. drekk-serr. Syn. Fr. for “turner in wood,” or “wood turner,” as in *Cabinet Making*—*Tourneuren bois*—pron. toohr-neur ahn bwah; Ger. *Holzdreher* (or *-drechsler*)—pron. holts-dray-err. Syn. Fr. for “turner’s work or turnery,” *l’Art de tourneur*—pron. lahr deh toohr-nure; also *Ouvrages faits au tour anglais*—pron. oohv-rahj fay-t-oh toor ahn-glai; Ger. *Dreharbeit*—pron. dray-ahrr-bite, or *Drehkunst*—pron. dray-koonst; or *Drehlerarbeit*.

Turning, in Construction. Syn. Fr. *Tournante*—pron. toohr-nahnt; Ger. *Wendung*—pron. venn-doong; also *Drechseln*—

pron. drekk-seln; also *Krümmung*, or *Drehung*—pron. kruehm-ooang, or dray-oong. Syn. Fr. for “turning by the lathe,” *Travail par le tour* (or *le tour anglais*)—pron. trah-vahill parr leh toohr; Ger. *auf der Drehbank drechseln*—pron. owff dare dray-bank drekk-selln. Syn. Fr. for “turning tool,” *Outil à tourner*—pron. ooh-teel ah toohr-nay; Ger. *Drechselmeissel*. Syn. Fr. for “turning of a road,” *Route courbée*—pron. root koohrb-eh; Ger. *Wegkurve*—pron. vaygh-koor-vay.

Turret, in Architecture. A small or little tower, the height of which generally exceeds its diameter or cross section. *Der.* From the Latin *turris*. Syn. Fr. *Tourelle*; also *Clocheton*—pron. klosh-ton—that is, a place for a bell, a bell being frequently hung in a turret; also *Tourette*—pron. tooh-rett; Ger. *Thürmchen*—pron. tuehrm-chen. Syn. Fr. for “a little turret,” *Petite tourette*; Ger. *kleiner Thurm*—pron. kline-er toorm.

Tuscan Order. One of the five orders of Roman architecture. Syn. Fr. *Ordre Toscan*—pron. orr-derr toss-kahn; Ger. *Toscanische Ordnung*—pron. toss-kann-eesh-eh ord-noong.

Tusk or Tusk Tenon, in Carpentry. A sloping part given to a tenon at the upper part of the shoulder, in order to give a firmer bearing to the tenon in the mortise. A tusk or tusked “tenon” is a tenon which has the upper shoulder bevelled or canted off. Syn. Fr. for “tusked tenon,” *Tenon embrèvement*—pron. tenn-on ahm-brave-mahn; Ger. *Zapfenversatzung*—pron. tsapp-fenn-ferr-zatts-oong.

Twist, in Construction. A term used to indicate that a body is not straight or has not the whole of its surface in the same plane or in the same direction. It may be “off the straight” (a phrase synonymous with “on the twist”) in the direction of its breadth—that is, altering in the plane of its surface in the direction of its width; or it may be in the direction of its length, altering the line of direction in its length. A good example of “twist” in both plane and length is the part of the handrailing of a staircase in some examples where the direction of the rail, say of the lower flight, changes to meet the second flight, which proceeds in a contrary direction, and rises at the same time to meet the higher level. *Der.* The word is the same as the Old English *twist* (from *twi*, two), to turn or twine round, as when two cords or threads are joined or made one by turning one round the other. Syn. Fr. for “to twist,” *Tordre*—pron. torr-derr; also *Détourner*—pron. day-tooehr-nay; also *Tisser*—pron. tee-say; also *Entrelacer*—pron. ahn-terr-lah-say; Ger. *Zusammendrehen*—pron. tsoo-sammen-dray-enn; also *Flechten*—pron. flech-tenn; also *Verwickeln*—pron. ferr-vick-eln; also *Verdichten*—pron. ferr-dich-tenn. Syn.

Fr. for "twist," *Cordon*—pron. kohr-dohn, or *Cordonnet*—pron. kohr-doh-nay, or *Corde*—pron. korrđ; also *Torsion*—pron. torr-seeon; Ger. *Geflecht*—pron. geh-flecht; also *Windung*—pron. vin-doong; or *Drehung*—pron. dray-oong; also *Zweig*—pron. tsving. Syn. Fr. for "on the twist" (twisted) in the direction of the length, so as to be what is called "on the skew," *Gauche*—pron. goash; also *Retors*—pron. reh-torr; Ger. *Windschief*—pron. vind-sheef; also *Gewunden*—pron. geh-voohn-den; also *Gedreht*—pron. gay-drayt. Syn. Fr. for "twisting," *Tordage*—pron. torr-dahj; Ger. *Drehung*—pron. dray-oong, or *das Drehen*.

Two, in Construction. A term used to indicate that a body is repeated or doubled, as a "two-brick wall." *Der*. From the Old English *twa* or *twei*. Syn. Fr. for "two-brick wall," *Mur avec* (or *à*) *deux briques*—pron. muehr ah-vekk deuh breek; also *Mur de quarante centimètres d'épaisseur* (this being the thickness or width of a wall of two bricks in French decimal measurement)—pron. muehr deh kah-rahnt sahn-tee-may-terr day-pace-euhr; Ger. *Mauer mit zwei Ziegelsteinen*—pron. mow-err mit tsvy tsee-gell-stine-en, or *Mauer von achtzehn Zoll* (this being the thickness or width of a wall in German inches—*Zoll*, an inch)—pron. mow-err fon aicht-tsane tsoll. Syn. Fr. for "two-foot," the abbreviated term which workmen frequently, perhaps generally, employ for a "two-foot rule," *Mesure de deux pieds*—pron. meh-zuehr deh deuh pee-ay; Ger. *Masstab von zwei Fuss*—pron. mahss-stahb fon tsvy fooss. Syn. Fr. for "two-cut

stuff"—that is, a board or plank cut in two, *Volige de deux et demi centimètres d'épaisseur*—pron. voh-leajh deh deuh eh deh-mee (generally pronounced as aid-me) sahn-tee-may-terr day-pace-euhr; Ger. *Bret zehn Linien dick*—pron. brett tsayn leen-yenn dick, or *Zehn Linien dickes Bret*. Syn. Fr. for "two-handed saw," *Scie pour deux ouvriers*—pron. see poor deuhze ooh-vree-ay; also *Égohine*—pron. eh-go-heen; Ger. *Säge mit zwei Handgriffen*—pron. zay-geh mit tsvy hant-griff-en; also *Stoszsäge*—pron. stoass-zay-geh.

Two-coat Work, in Plastering. Plaster either laid and set or rendered and set. Syn. Fr. for "coat of plaster," *Crépi de plâtre*—pron. krape-ee deh plah-terr, or *Enduit de plâtre*—pron. ahn-dwee; Ger. *Gypsbewurf*—pron. gipps-beh-voort, or *Gypsüberzug*—pron. gipps-ueh-berr-tsoog.

Tympanum, in Architecture. The triangular space enclosed within a pediment, or gable-rooflike part of a building placed above the cornice, the lines of the mouldings of which form the base, the mouldings of sloping sides of pediment form the sides of the tympanum. Syn. Fr. *Tympan*—pron. teem-pang; also *Sellette*—pron. sell-ett; Ger. *Giebfeld*—literally "the field of the gable"—pron. gee-bell-felt. Syn. Fr. for "the tympan of an arched door," or the panels above it formed by the arch, *Panneux d'une porte*—pron. pan-noh duuhn voort, or *Travée d'une porte*—pron. trah-vay; Ger. *Thürtafelung*—pron. tuerr-tah-fell-oong, or *Thürfüllung*—pron. -fue-loong.

U

Uncoursed Work, in Masonry. A term synonymous with "rough rubble" or rubble work in which no regular courses (see Course) or lines of joints are followed, but the joints are regulated simply by the shape or form of the unworked or naturally-shaped stones of which the wall in rough rubble or uncoursed wall is built. Syn. Fr. for "wall uncoursed" or "uncoursed wall," *Mur sans assises*—pron. muehr sahnz ass-eez, or *Mur de hourdage*—pron. deh hoor-dahj; Ger. *Mauer ohne Schicht*—pron. mow-err oh-neh schicht, or *Mauer aus Rohstein* or *Feldstein*—pron. mow-err owss row-stine, felt-stine. The prefix "un" is the Old English word for a negative; sometimes it was spelt in Old English as "an." Its application is practically endless in our language: it may be prefixed to almost every, if not quite to every, adjective or adverb or participle employed as an adjective, and even also to some of our verbs and substantives.

Underpinning, in Masonry and Brick-work. The operation carried out where the lower part of a wall has to be taken out in order to make a better or safer foundation, or where work of a particular kind requires a part of the lower wall near or at the foundations to be taken out, as in the case of a permanent opening required where previously the wall was solid. The upper or standing wall is supported while the work of underpinning is carried on by timber posts and shoring. The term is also applied to cases of wall building, the upper courses of which are supported for the time by the shoring. *Der*. Our word "under" comes from, and is identically the same with, the Old English word, signifying an object in a lower position than another, or one body placed below another body which projects over it. Syn. Fr. *Ouvrage reprise sous œuvre*, or *en sous-œuvre*—pron. ooh-vrahj reh-preez sooz euh-verr; or *Ouvrage d'une*

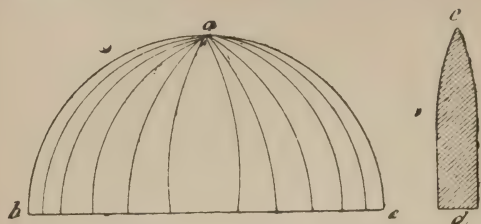


Fig. 1

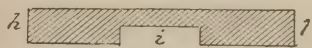
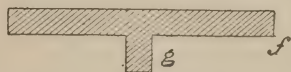
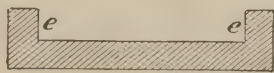
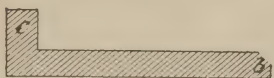
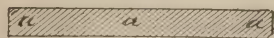


Fig. 2

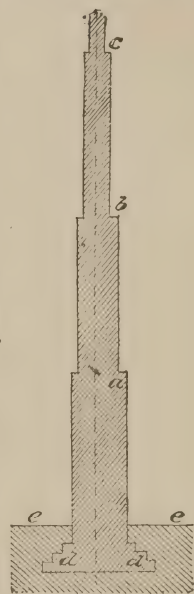


Fig. 3

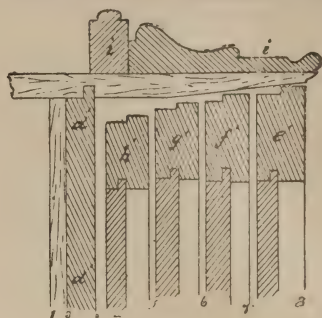


Fig. 4

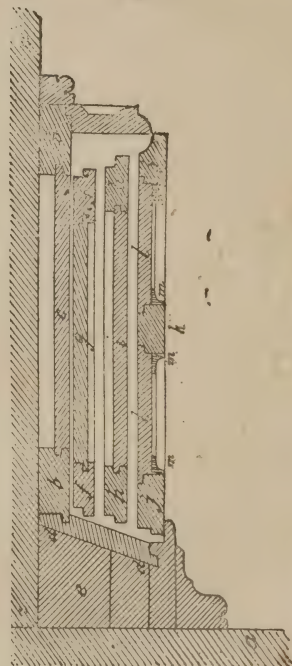


Fig. 5

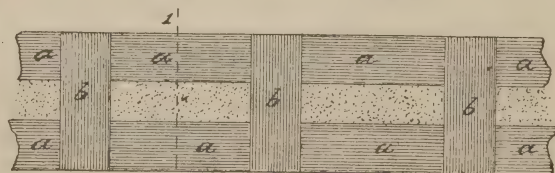


Fig. 6

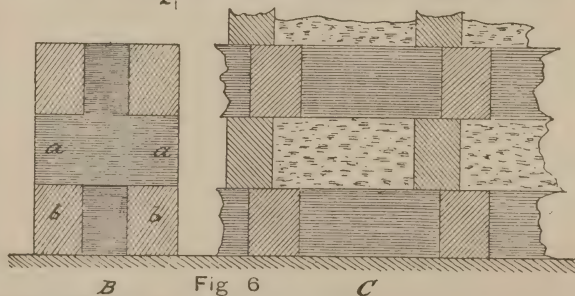


Fig. 6

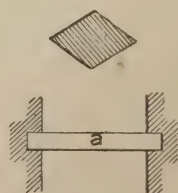


Fig. 7



fondation reprise en sous-œuvre—pron. duehn fohn-dah-see-on; Ger. *Unterbauwerk einer Mauer*—pron. oon-terr-bough-vairrk ine-err mow-err; also *Grundmauerwerk mit Unterballen und Pfosten*—pron. groohnd-mow-err-vairrk mit oohn-terr ball-ken oond pfoss-tenn.

Uneven, in Construction. A term used for a variety of purposes, and in connection with a wide variety of materials. It may denote general roughness of surface, as of a stone or a wall or a piece of wood, and may thus be synonymous with roughness. Or it may denote that a body, such as a beam, does not lie wholly in one direction, and the term may therefore be synonymous with not straight or "off the straight." *Der.* The word "even" is identical with the Old English *even*, or it comes from *efen*, and means what is smooth in surface or uniform in level. Applied to numbers it denotes that the number can be divided by two without leaving a remainder or figure over. It is thus opposed to "odd," which comes from the Swedish *udda*, uneven—thus, to set up (as posts) in even numbers. Syn. Fr. for "uneven materials," *Matériaux inégaux*—pron. mah-tare-ee-oh inn-eh-goh, or *Matériaux mal égaux*—pron. mahl eh-goh; Ger. *unebene Materialien*—pron. oohn-eh-ben-neh mah-tehr-ee-ahl-enn, or *ungleiche Materialien*—pron. oohn-gly-che. Syn. Fr. for "uneven surface," *Surface or Superficie inégale*—pron. suehrr-fahss or sooh-pair-fee-see inn-eh-gahl; Ger. *unebene Oberfläche*—pron. oohn-eh-ben-neh oh-berr-flech-eh.

Unhewn, in Masonry. Stone not tooled or dressed. *Der.* Our word "hew" or "hewn" comes from the Old English *heawan*, or the German *hauen*, to cut in pieces. Syn. Fr. for "to hew stones," *Couper les pierres*—pron. kooch-pay lay pee-airr; Ger. *Steine behauen*—pron. sti-neh bay-how-enn. Syn. Fr. for "to hew wood," *Laver du bois*—pron. lah-vay duuh bwah; Ger. *Holz behauen*—pron. holtz bay-how-enn. Syn. Fr. for "unhewn stones," *Pierres non coupées*—pron. pee-airr nong kooch-pay, or *non taillées*—pron. tah-eel-eh; Ger. *unbehauene Steines*—pron. oohn-bay-how-enn-eh sti-neh. Syn. Fr. for "unhewn wood," *Bois non paré, or non ajusté*—pron. bwah nong parr-eh, ah-jooohs-eh; also *Bois brut, or qui n'est pas taillé*—pron. bwah brugh or brooh, or kee nay pah tah-eel-eh; Ger. *unbehauenes Holz*—pron. oon-bay-how-enn-ess holts.

Uniform—Uniformly, in Construction. Terms used to indicate the character of certain work, as the "courses to be uniform" or "uniformly laid," or a certain part to be uniform with another part. *Der.* The word uniform comes from the Latin *uniformis*, and this from *unus*, one, and *forma*, a form or shape—that is, bodies uniform possess similar features. The use

of the term in construction simplifies specifications; for a certain part of the work being fully described in connection with one part of the structure, if work of the like kind is to be done in another part, no repetition of the description is required, it being only necessary to specify that the work is to be done "uniform with" the work done in the other part, which is to be named. Syn. Fr. for "uniform work," *Ouvrage uniforme*—pron. ooh-vrahj ueh-nee-form; Ger. *gleichförmiges Werk*—pron. glych-foerr-mich-ess vairrk, or *gleichmässiges Werk*—pron. may-sich-ess vairrk; also *einformiges Werk*—pron. ine-foerm-i-gess vairrk; or *uniformes Werk*. In place of the phrase "to be uniform with," another is sometimes used in specifications of work to be done—namely, "in uniformity with." Syn. Fr. for uniformity, *Uniformité*—pron. ueh-nee-form-ee-tay; Ger. *Einförmigkeit, or Gleichförmigkeit*.

Unjointed, in Construction. Bodies, as stones, beams, and the like, laid simply in contact, as end to end, but not connected or secured together by special means, as mortar, cement, joggles, or joints. Syn. Fr. *Pièces de matériaux de construction non jointées, or sans joint*—pron. peayce deh mah-tairr-e-oh deh kohn-struek-see-on nohn joh-ahnt-ay; sahnh joh-ahnt; Ger. *Materialenstücke nicht gefügt, or ungefügt*—pron. mah-tehr-ee-ahl-en stuek-eh nieght gay-foohgt, or oon-gay-foohgt; or *Nicht gefügetes or ungefügetes Stück von Materialien*.

Unlevelled, in Construction. Not levelled or off the level (see Uncoursed Work). Syn. Fr. for "unlevelled ground," *Sol or Terre pas nivellé*—pron. soll or tairr pah nee-vell-eh, or *Sol or Terre hors d'eau*—pron. horr doh—literally "out of water," referring to the fact that water at rest always finds its level, or *Sol or Terre avec surface inégale*; Ger. *unebener Grund*—pron. oohn-eh-ben-ner groohnt; also *nicht wagerecht*—pron. vah-ge-recht.

Unscrewed, in Construction. Work with (screw) bolts and nuts, as scarfed beams, etc., the nuts of which have not been screwed up, or the bolts and parts brought home—that is, tightened up, so as to be secure. The term may also be used inversely to indicate that parts previously tightened up and secured in place by bolts and nuts have been separated by unscrewing the nuts. Syn. Fr. for "unscrewed," *Déserré, or Dévissé*—pron. day-serr-eh, day-veess-eh; Ger. *Aufgeschraubt*—pron. owff-geh-shrowbt.

Unstiffed, in Painting and Distemper Work. The colour, as whitening, before the size, as glue, is added to it. *Der.* The word size comes from the Old English *syth*, glue, otherwise meaning stiff or hard—glue or size having the effect of stiffening liquids, etc., to which it is applied. Syn. Fr. *Couleur*

non *collée* (colle, glue, size)—pron. kool-euhr non koll-eh; Ger. *ungeschlämmte Farbe*—pron. oohn-geh-shlemm-teh farr-beh; also *Farbe ohne Kleister*—i.e. flour paste or size—pron. farr-beh oh-neh klice-terr, or *Farbe ohne Pappe* (paste)—pron. pahp-peh.

Unslaked Lime. The limestone after calcination or burning in the kiln, but before it has water added to it to form a hydrate of lime, which is technically called "slaking," or often, though less accurately, "slacking." *Der.* The word slake comes from the Old English *leccan*, or the Danish *slacha*, to wet, to extinguish, to mix with water. Syn. Fr. for "unslaked lime," *Calcaire non éteint* (from *éteindre*, to extinguish, to quench)—pron. kal-kare non ay-taih-n; Ger. *ungelöschter Kalkstein* (from *löschen* [loeh-shenn], to quench)—pron. oohn-geh-loesht-err kahk-stine; also *Dämpfen*.

Unspaced, in Construction. The converse of work which has been "spaced out," as the joists in a floor, the studs in a partition, and the like. *Der.* The word space—which in the present case means the intervals or voids between the bodies, as the joists—is from the Latin *spatium*, or the French *espace*. Syn. Fr. for "work unspaced," *Ouvrage non interligné*—pron. ooh-vrahj non aihn-terr-leegn-yeh; Ger. *undurchschossene Arbeit*, or *-es Werk*—pron. oohn-doorch-shoss-enn-eh ahr-bite, or -ess vairrk.

Unsteady, in Construction. When a body, as a beam or a block of stone, is not "set fair and square," as a stone which rocks in its bed and requires packing up or being moved to a position where it "rides" fairly—to use the technical expression—it is said to be unsteady, which is a constructional synonym for work not "sound" or "good," or work "not set in a workmanlike manner." Another synonym is that the body has "too much play," or that it can be moved or changed in position: a body with "no play" is steady. *Der.* Our word "steady" comes from the Old English *stead*, a place or station—that is, when a body is in its proper place it is right, so that it can remain there or be steady. As in other terms we have given, the prefix "un" gives the negative side of the attribute of propriety of place. Syn. Fr. for "unsteady," *Qui n'est pas stable* or *fixe*—pron. kee nay pah stah-bell, feex, or *Qui a du jeu* ("which has play")—pron. kee ah dueh jeu; also *Avec du jeu*—pron. ah-vekk; or *Qui prend du jeu*—pron. prahn; Ger. *Unbeständig*—pron. oohn-bay-stenn-dich; also *Veränderlich*—pron. ferr-enn - derr - lich; also *Spielraum habend*—literally "having a play-space or room"—pron. speel - rowm hah - bent. Syn. Fr. for "unsteadiness," *Instabilité*—pron. aihn-stah-bee-lee-tay; also *Défaut de fixité*—pron. day-foh deh feex-ee-tay; Ger. *Unbeständigkeit*—pron. ooh-beh-sten-dich-kite.

Unwrought, in Materials. A synonym for materials, as stone or timber, which have not been prepared, tooled, or worked up into the final form and of the dimensions required. *Der.* Our word work—of which wrought is a past participle—comes from the Old English *wyrcan* or *vyrcan*, or the German *werk* (vairrk). Syn. Fr. for unwrought, as regards timber, *Bois non coupé*—pron. bwah non koop-eh, or *non travaillé*—pron. trah-vahl-yea, or *non ouvré*—pron. oov-ray; Ger. *rohes Holz*—i.e. rough wood—pron. ro - ess holts; also *unbearbeitetes Holz*—pron. oohn - beh - ahr - bite - et - ess holts. Syn. Fr. for unwrought, in regard to stone, *Pierre non taillé*—pron. pee-airr non tahl-yea, or *Pierre brut*—pron. brucht; Ger. *unbearbeiteter Stein*; also *unbehauener Stein*—pron. oohn-beh-how-enn-er stine.

Uphers, in Bricklaying and Carpentry. Fir poles so called, ranging from twenty to forty feet in length and from four to seven inches in diameter, used for scaffolding, etc.

Upholstery, and Cabinet Making. These two trades are generally considered as one, from their being so generally carried on by one and the same individual, the work of the one trade also running into that of the other so closely that it is popularly difficult to define each as having a special province of its own. The distinction between the two may be simply stated as this: that while cabinet making concerns itself with the making of the framework of household furniture, useful or purely or chiefly decorative, upholstery takes up the covering of these with the materials which custom or fashion has directed, such as the covering of chairs and sofas with hair-cloth or some woven fabric, and concerns itself also with the decorative work of hangings, tapestry, and the like. This definition of upholstery (see Cabinet Making) will be found corroborated if we go to the derivation of the word "holstery," which is the leading part of the term, the "up" being a prefix very commonly used, such as in upholding and the like. Holster is almost identical in spelling with our holster—*heolster*, a concealed place, and this from *helan*, to cover. The word holster used singly denotes the leather case which soldiers carry, or used to carry, to partially conceal or cover their pistols. This derivation applies to the leading work of the holsterer, or, as we now term it, the upholsterer, as it covers or conceals, as well in the fixed and permanent covering of chairs, etc., as in the mobile decorations of hangings, window curtains, carpets, and the like. Syn. Fr. for "upholstery," *Tapisserie*—pron. tah-peece-err-ee (commonly pronounced short, as tah-peece-ree)—from *tapis* (tah-pee), a carpet, or *tapisser* (tah-peece-eh), to cover, to deck;

Ger. *Tapezierarbeit* — pron. tah-pay-tseer-ahr-bite; also *Tapeziergeschäft* — tah-pay-tseer-gay-shefft. Syn. Fr. for "upholsterer," *Tapissier* — pron. tah - peece - yea; Ger. *Tapezierer* — pron. tah-payts-eer-err.

Upper, in *Construction*—as the upper beam, the upper courses, framing, etc. *Der.* From the Old English *ufor*, higher up or highest up. Syn. Fr. for "upper," *Dedessus* — pron. deh dess-ueh; also *Supérieur* — pron. sue-pay-ree-euhr; also *En haut* — pron. ahn hoh; Ger. *Ober* (over) — pron. oh-berr; also *Höher* (higher) — pron. hoehe-err. Syn. Fr. for "uppermost," *Le plus haut* — pron. leh plueh hoh, or *Le plus élevé* — pron. leh pluehz eh-le-vay; also *L'objet qui domine*—i.e. "the object which dominates"; Ger. *Oberst* — pron. oh-berrst; also *Höchst* — pron. hoechst (*ch* always as in "och"); also *Vorherrschend* — pron. forr-hair-shent. For "upper surface" of stones, beams, etc., in continued work, as in the laying of courses of stones, the upper surface is the bed or bedding face or surface for the stones of the course next in succession: Syn. Fr. *Surface supérieure* — pron. suehr-fahss sueh-pare-ee-euhr; also *Face de dessus* — pron. fahss deuh deuhs-sueh; Ger. *Oberfläche* — pron. oh-berr-flech-eh. Syn. Fr. for "upper or weathering surface" or slope, as of a stone coping or window sill, *Biseau* — pron. bee-zoh; Ger. *Wasserschlag* — pron. vass-err-shlahg, or *Wasserschräge* — pron. -shray-geh. Syn. Fr. for "upper stratum or surface of soil or ground" in foundation work, *Lit* (or *Couche*) *de dessus de sol* — pron. lee- or koosh deuh deuhs-sueh dueh soll; Ger. *Oberstratum* (or *-bett*) — pron. oh-berr-strah-toom (or bett).

Upright, in *Masonry and Carpentry*. A term used to indicate that a body, as a block of stone or a post or beam, is straight up or vertical—standing up, solid or steady. *Der.* The word right comes from the Old English *riht*, straight, not bent or inclined to one side, or "fair set," to use a synonym for upright, as a post or pillar set or placed fair. Syn. Fr. for "upright," *Vertical* — pron. vair-tee-kahl; also *Perpendiculaire* — pron. pair-pahn-deek-ueh-lairr; also *Debout* — pron. deh-booh; also *Montant* — pron. montahn; Ger. *Aufriss*, or *Standriss* — pron. owff-riss, stant-riss. Syn. Fr. for "upright post of a door," *Poteau d'une porte* — pron. poh-toe duuhn portt; Ger. *Thürpfosten* — pron. tuehr-pfoss-tenn, or *Thürholzsäule* — pron. tuehr-holtz-zoy-leh.

Upset Materials, as lime, soil, sand, and the like. A term of which empty or discharge the contents of a cart is a synonym, the cart being set or tilted up so that the sand, soil, etc., may be shot out or allowed to slide out. *Der.* The word set is from the Old English *settan*, to give a definite position to a body, to place upon a certain spot. Syn. Fr. *Verser* — pron. vairr-say, or *Renverser* — pron. rahn-vairs-say; Ger. *Umwerfen* — pron. oohm-vair-fenn; also *Umstürzen* — pron. oohm-stuerrt-senn.

Urinal. An inclosed space set apart for public convenience. *Der.* From the Latin *urina*, urine, the fluid secreted by the kidneys. Syn. Fr. *Urinoir* — pron. ueh-reen-wahr, or *Urinal* — pron. ueh-ree-nahl; also *Pissoir* — pron. piss-wahr; Ger. *Pissraum* — pron. piss-rowm.

V

Valence Window, in *Upholstery and Cabinet Making*. What may be called a hanging cornice, which passes across the window opening immediately below the ceiling. It consists of a narrow strip of drapery or cloth printed or decorated, the lower edge of which is scalloped or formed into curves. This is attached either to a wooden bar or concealed or open cornice, or to an iron rod or bar stretching across the window space. Syn. Fr. *Cantonnière* — pron. kann-toh-nee-airr; Ger. *Fensterhang*, or *Fensterstellenbekleidung* — pron. fenn-sterr-stell-enn-beh-klide-ong.

Valley Board, in *Carpentry*. The flat board which is supported by and secured near the feet of the interior rafters of a double common span roof, and which itself carries the valley gutter which rises between the two roofs. Syn. Fr. *Planche pour le chameau d'un double comble avec deux pentes*

—pron. plahnsh poor leh shah-moh deuhn dooh-bell comm-bell ah-veck duuh pahnt; Ger. *Dachrinne zwischen zwei Satteldächern* — pron. dach-rinn-eh tsvish-enn tsvi sah-tell-dech-ern.

Valley Rafters, in *Carpentry*. The rafters placed in the internal angles or sloping sides of a double span roof, the two internal sides of which slope down to form the valley in which the valley board and gutter are placed. A valley rafter is sometimes called a "jack rafter," sometimes a "gutter rafter." *Der.* Our word valley comes from the Latin *vallis*, a hollow, or the lowest place between two rising grounds, or from the French *vallée*, another French synonym for which is *noulet* — pron. nooh-lay. Syn. Fr. for "valley-rafter," *Chevron à noulet* — pron. shev-rohn ah' noo-lay; Ger. *Kehlsparren* (from *kehlen*, to channel or make a gutter of) — pron. kail-spar-renn; also *Sparren von*

zwei Satteldächern — pron. spar-renn fonn tzvih sat-tell-dech-errn.

Valuation of Materials or Buildings. The calculation and drawing up of a statement or schedule of the prices or market value of the materials or of buildings. *Der.* Our word value comes from the Latin *valere*, to be worth, to be strong. Syn. Fr. for "valuation of materials of buildings," *Valuation des matériaux des bâtiments* — pron. vahl-ue-ah-seeyon day mah-tair-ee-oh day bah-tee-mahn; Ger. *Schätzung der Materialien für Bauwerk* — pron. shets-ohng dare mah-tehr-ee-ahl-en fuer bough-vairrk.

Vane, in Construction. The finial or highest part of the spire of a church or the turret of a building, so constructed that its tail or flat end, corresponding to the feather of an arrow, turns round with the wind, and remains opposite the quarter from which the wind blows; while the head, made as an arrow-head, points to the direction from which the wind comes, and thus indicates its "quarter." A synonym often used is "weather-cock," the vane being made in the form of the body of a cock, the tail being to the leeward, a direction opposite to that from which the wind blows, the head pointing windward. It was so called, as the wind is popularly supposed to be the indication of the coming weather. *Der.* Our word vane comes from the Old English *fana*, a banner, a piece of cloth or wood hung loosely to a high pole to show the way in which the wind blew. Syn. Fr. for "vane," *Girouette* — pron. jheer-oo-ett; Ger. *Fahne* — pron. fah-neh; for "weather vane," *Wetterfahne* — pron. vet-terr; for "wind vane," *Windfahne* — pron. vinnd; for "roof vane," *Dachfahne* — pron. dach.

Vanishing Point, in Perspective Architectural Drawing. The point to which all the visual rays from the points of objects converge, so as to show the gradually lessening dimensions of points as they recede from the eye, till, if they were extended enough, they would gradually disappear. *Der.* Our word vanish comes from the Latin *vanescere*, to disappear, and this again from *vanus*, empty. Syn. Fr. *Pointe fuyante* — pron. pwahnt fwee-ahn, or *Pointe où les lignes d'un dessin disparaissent* — pron. oo lay leeng duuhn dess-ahn deess-pah-raiss; Ger. *verschwindender Punkt vom Riss* — pron. ferr-shvin-denn-derr poonkt fom riss.

Varnish, in Cabinet Making and Painting. A composition of various fluid and solid substances which, when melted or mixed, and laid on the surface of wood or of paint, gives a smooth, glossy, and shining appearance. *Der.* Our word varnish comes from the French *vernir*, and this from *vernir*, to varnish, the derivation of the French word being the Latin *vitruere*, to glaze, and this from *vitrum*, glass. Syn. Fr. *l'ernis* — pron.

vairr-nee; Ger. *Firniss* — pron. fearr-niss. Syn. Fr. for "to varnish," *Vernisser* — pron. vairr-nee-say; Ger. *Firnissen* — pron. fearr-niss-enn. Syn. Fr. for "varnisher," *Vernisseur* — pron. vairr-nees-seuhr; Ger. *Polirer* — pron. pol-ear-err. Syn. Fr. for "varnishing," *Vernissage* — pron. vairr-nees-sahj, or *Vernissure* — pron. vairr-nees-suehr; Ger. *Firnissen* — pron. fearr-niss-enn.

Vault, in Building Construction. The name given to the roof of a structure in which the inner surface is concave and the outer convex, the plan of which is generally circular. The vault is thus an arched roof, but in which the arch and curved stones are wedge-shaped, — that is, they taper, so to say, from the outer circle or inclosing wall of the building to the apex or centre of the vault. The vault does not seem to have been known to the Egyptians or to the Greeks; but it rapidly became a marked feature of late Roman architecture, and one which enabled the Romans to excel the Greeks in the science of construction, as the Greeks excelled them in the art of design, and as the Gothic builder excelled the Roman. The finest specimens of the vault are to be met with in the various Gothic buildings. *Der.* Our word vault comes from the Italian *volta*, or from the Latin *volvere*, *volutum*, to roll or turn about. In some districts of our country, and by some old artisans, a vault is termed a voot, which in pronunciation at least is almost identical with the French name. Syn. Fr. *Voûte* — pron. voot; also *Souterrain* — pron. sooh-terr-ahn; also *Caveau* — pron. kah-voh; Ger. *Gewölbe* — pron. geh-voell-beh. Syn. Fr. for "a barrel or semi-cylindrical vault, like a tunnel," *Berceau* — pron. bairr-soh; also *Voûte en tonnelle* — pron. vooh-ahn toh-nell, or *Voûte sur le noyau* (see Newel) — pron. suehr leh no-yoh; Ger. *Halbkreisgewölbe* — pron. halb-krice-geh-voell-beh, or *Tonnen-gewölbe* — pron. tonn-enn, or *Kufgewölbe* (*Kufe*, a tub or barrel) — pron. kooch-feh. Syn. Fr. for "a cross vault or cross-arched vault," *Voûte d'arête* — pron. darr-ate; Ger. *Grathgewölbe*, or *Wahngewölbe* — pron. vahn. Syn. Fr. for "a domed or domical or semi-spherical vault," *Voûte sphérique*, or *en dôme* — pron. sphare-eek, ahn dohm; Ger. *Kessel-gewölbe* — pron. kess-ell — i.e. like the curved semi-spherical top of an inverted kettle, or *Walm* (slope) *gewölbe* — pron. vahn. Syn. Fr. for "a cone-shaped or conical vault," *Voûte conique* — pron. konn-eek; or *Voûte de trompe* — pron. deh troahmp; Ger. *Kegel-gewölbe* (*Kegel*, a cone) — pron. kay-gell; or *Trompengewölbe* — pron. tromm-penn. Syn.

Fr. for "a vault with haunches filled up"—that is, with a flat plane or leveled outside or upper surface—*Voûte extra-dossée* (i.e. a vault extra backed or topped)—pron. extrah doss-eh; Ger. *Gewölbe mit glattem Rücken* (i.e. with even or level back or upper surface)—pron. mit glatt-em ruck-kenn. Syn. Fr. for "a fan-shaped or fan vault," *Voûte avec nervures rayonnantes* (i.e. with radial ribs)—pron. ah-veck nairr-vuehr ray-yohn-ahnt; Ger. *Gewölbe mit strahligen Rippen* (radiated also, for this *strahlenden*)—pron. mit strah-lich-en rip-pen; or *Fächer-gewölbe* (i.e. fan-shaped vault)—pron. fech-err. Syn. Fr. for "a vault with fan-shaped tracery work," *Voûte décorée avec nervures naissant du chapiteau et divergent à la tête or au cintre*—pron. day-korr-ay ah-vekk nair-vuehr ray-sahnt dueh shah-peet-oh eh dee-vairr-jahn-tah lah tayt, or oh saihn-terr; Ger. *Gewölbe mit Fächer-masswerk*—pron. mit fech-err mahss-vairrk. Syn. Fr. for "a full-centred arch vault," *Voûte à l'arc droit*—pron. ah lahrkk drwah; or *Voûte avec plein cintre*—pron. ah-vekk plain saihn-terr; or *Voûte en berceau*—pron. ahn bairr-soh; Ger. *Halbkreisgewölbe*. Syn. Fr. for "a Gothic or pointed-arch vault," *Voûte gothique*—pron. goh-teek; or *Voûte ogivale*—pron. oh-jee-vahl; Ger. *gothisches Gewölbe*—pron. goh-tish-ess; or *Spitzbogengewölbe*—pron. spits-boh-genn. Syn. Fr. for "a cylindrical vault built on the skew" or "a skewed barrel vault," *Voûte en arc de cercle*—pron. arkk deh sairr-kell; Ger. *schiefes Gewölbe*—pron. sheeh-fess (*schief*, oblique). Syn. Fr. for "a vault built on the incline" or "on a sloping surface," *Voûte en berceau rampante*—pron. rahm-pahnt; Ger. *Gewölbe mit abschüssigem Fussboden* (i.e. with sloping floor)—pron. mit app-shuess-ich-em fooce-boh-denn. Syn. Fr. for "a vault on the incline and turning or bending round as it proceeds," *Voûte en berceau rampante et tournante*—pron. toohr-naht; Ger. *Gewölbe mit abschüssigem und wendendem Fussboden*. Syn. Fr. for "the rise or height of a vault," *Montée de voûte*—pron. mohn-tay; Ger. *Gewölbehöhe*; also *Hauptmass eines Gewölbes*—pron. howpt-mahss ine-ess geh-voehl-bess. Syn. Fr. for "a vault the rise or height of which is more than half of the span or diameter of the vault," the technical term for which is surmounted—*Voûte surmontée or surhaussée*—pron. suehr-mohn-tay or suehr-hoce-ay; Ger. *überhabenes Gewölbe*—pron. ueb-err-hah-benn-ess. Syn. Fr. for "a vault the rise or height of which is less than half the span or less than the radius of the vault"—technically termed a "surbased" vault—*Voûte surbaissée*—pron. suehr-bayss-ay, or *Voûte à panier d'âne* (so called from its supposed resemblance to the shape of the pannier of an ass)—pron. pahn-nee-ay dahn. Syn. Fr. for "vaulted construction," *Con-*

struction voûtée or bombée—pron. konn-struek-see-on voo-tay, bomm-bay; or *Construction en arc or arc convexe*—pron. ahng arkk, cohn-vaix; or *Construction cintrée*—pron. saihn-tray; Ger. *bogenförmiges Bauwerk*—pron. boh-genn-foerrm-ich-es bough-vairrk, or *gebogenes Bauwerk*—pron. geh-boh-genn-ess; or *bogenrundes Bauwerk*—pron. boh-genn-roohnd-ess, or *Gewölbe-bauwerk*. Syn. Fr. for "vaulting," *Construction des voûtes*—pron. kohn-struek-see-on day vooht; Ger. *Gewölben*—pron. geh-voell-benn.

Veins, in Materials. As veins in stone, marble, etc., or in wood; although the synonym "grain" is much more frequently used to indicate the peculiar appearance which veins give to timber when worked, planed, and polished. Another synonym for veins in timber or wood is "humour." Veins may be popularly described as the marks or what are called streaks of a different shade, or of a different colour, which run across the surface of a material, assuming a variety of forms, as straight pitched, or wavy. They are caused in stone by the admixture of some substance foreign to or different from the general constitution of the block, as the red streaks or veins in sandstone by the presence of oxide of iron. In timber they are caused by different conditions of the sap; hence the term "humour" noted above. *Der.* Our word, as now applied, is taken from the veins of the human body, which show through the skin a wide and singularly diverse ramification; or it may be adapted from the veins of a leaf, the delicate ribs which support the membrane, and which are so beautiful in their ramification. The word itself comes from the Latin *vena*, or more directly from the French *veine*. Syn. Fr. for "vein of stone," *Veine de pierre*—pron. vein deh pee-air; also *Fil de bois*—pron. feel deh bwah; Ger. *Ader* or *Blasen im Stein*—pron. ah-derr, blah-zen im stine. Syn. Fr. for "vein in marble," *Veine* or *Fil de marbre*—pron. mahr-berr; Ger. *Ader im Marmor*. Syn. Fr. for "to vein wood," *Veiner le bois*—pron. vein-eh leh bwah; Ger. *Holz adern*—pron. holts ah-derrn. Syn. Fr. for "to vein wood in imitation of marble," *Marbrer*—pron. mahr-bray. Syn. Fr. for "veined," *Veiné*—pron. vein-eh; also *Veineux*—pron. vein-euh; also *Filandreux*—pron. feel-ahn-dreuh, or *Filardeux*—feel-ahr-deuh; Ger. *Aderig*—pron. ah-derr-ich, or *Faserig*—pron. fahs-err-ich (from *Faser*, a vein).

Veneer, in Cabinet Making. A thin layer or sheet of wood of superior quality and of a different kind for covering the surface of another and thicker piece of wood of lower value. Thus common hard wood may be covered with a veneer of walnut- or rose-wood, etc. *Der.* Our word is from the

French *fournir*, or the German *furnieren*, to furnish. Syn. Fr. for "veneer," *Plaque de bois*, or *en bois*—pron. plahk deh bwah, ahn bwah; also *Placage en bois*—pron. plahk-ahj; also *Feuille de placage en bois*—pron. fueh-eel; Ger. *Furnierholzblatt*—pron. foohr-nearr-hollts-blatt. Syn. Fr. for "to veneer wood," *Plaquer de bois*—pron. plah-kay; Ger. *Holz furnieren*—pron. hollts foohr-nearr-enn. Syn. Fr. for "veneering," *Placage en bois*; Ger. *Holz furnierung*—pron. hollts-foohr-nearr-oong.

Venetian Door, in Construction. A door which has two narrow windows or lights, one on each side. The windows are shorter than the height of the door, terminating at a height from the door sill or step about one-third or so of the full height of door. Syn. Fr. *Porte à la Vénitienne*—pron. port ah lah vain-ee-sienn; Ger. *Venezianische Thüre*—pron. vay-nay-tseeah-nish-eh tueh-reh.

Venetian Window, in Construction. A three-light window. The central light is much broader than the side lights, which are narrow—about one-third or one-fourth of the width of the centre window. The side lights are separated from the central one by broad solid piers; the height of all the three lights is the same. Syn. Fr. for "Venetian window," *Fenêtre à la Vénitienne*—pron. fen-ne-terr ah lah vain-ee-sienn; Ger. *Venezianisches Fenster*—pron. vay-nay-tseeah-nish-ess fenn-sterr.

Vent, in Construction. A Scottish synonym for "chimney flue" (which see). The term is also applied in many cases in construction as a "vent hole"—that is, an aperture to admit of the escape of smoke, air, water, etc. Der. Our term is from the Latin *ventus*, wind. Syn. Fr. *Ventéau*—pron. vahn-toh; also *Orifice*—pron. oh-ree-feece; also *Ouverture*—pron. ooh-vairr-tuehr; also *Evantéau*—pron. eh-vahn-toh, or *Evanteuse*—pron. eh-vahng-teeuze: if provided with a valve or flap to open and close the valve, the words *avec soupape* (pron. ah-vekk sooh-pahp) to be added to the above; Ger. *Windhöhle*—pron. vind-hoeh-leh, or *Windloch*—pron. vind-loch (*och* as in the Irish "Och-hone"); also *Ausflucht*—pron. owss-floocht; also *Blashöhle* (from *blasen*, to blow)—pron. blahs-hoeh-leh; also *Ventil*—pron. vahn-teel: if the vent has a valve, *Klappenwindloch*—pron. klapp-enn-vind-loch; also *Klappen-blashöhle*.

Ventilation, in Construction. The art of supplying apartments in domestic structures and public places of assembly with fresh or pure air, and withdrawing the foul produced by breathing, or by consumption of gas, etc. With many, ventilation is considered as merely concerned with the first of these objects; but this is the fruitful source of the disappointments so frequently met with

in connection with attempts to ventilate places occupied by man and by animals. No ventilation can be such in the true sense of the term, unless the withdrawal of foul and the admission of fresh air be carried out *pari passu*, or in conjunction. Der. Our word "ventilate" comes from the Latin, the root of which is *ventus*, the wind; from this the diminutive *ventulus*, a little or gentle wind, a wafting, and from this *ventulare*, *ventulatum*, to expose to gentle or light currents of air, to fan. Syn. Fr. for "ventilation," *Ventilation*—pron. vahn-tee-lah-see-yon; also *Aérage*—pron. ah-air-ahj; Ger. *Ventiliren*—pron. venn-tee-leer-enn; also *Auslüften* (*Luft*, the air)—pron. owss-luehf-tenn, or *Auslüftung der Windfänge* (*Fang*, draught)—pron. owss-leuhfft-oohng dare vind-feng-eh. Syn. Fr. for "ventilator," *Ventilateur*—pron. vahn-tee-lah-teuhr; also *Aspirateur*—pron. ah-speerah-teuhr; Ger. *Windröhre*—pron. vind-roehr-eh, or *Windfangrohr* or *Windrad*—pron. vind-rahd (*Rad*, a wheel, referring to the whirling ventilators used largely years ago in windows with the idea that the motion of the vanes of the wheel caused by the incoming or outgoing of the air helped largely to withdraw foul air from the room); also *Luftzubringer*—"air bringer" (from *bringen*, to bring, to convey or carry)—pron. looft-tsoo-bring-err, or *Luftascendung*. These two last terms apply, the first to ventilation for the supply of fresh or pure air, and the second to the withdrawal of foul air. Syn. Fr. for "to ventilate," *Ventiler*—pron. vahn-tee-lay; also *Renouveler l'air*—pron. reh-nooh-vel-lair, or *Conduire l'air*—pron. kohn-dweer lair; also more precisely, as embodying the two essentials of ventilation as noted above, *Fournir or Donner et ôter l'air d'une chambre*—pron. foohr-neer, or donn-eh ay oh-tay lair duuhn shahm-ber; Ger. *Luft zuführen* (literally "to drive, to carry, or convey air")—pron. looft tsoo-fuehr-enn; also *Ventiliren*—pron. ven-tee-lee-ren; also *frische Luft ein und schlechte*—pron. frish-eh looft ine oohnt shlech-teh, or *schmutzige Luft auslassen*—pron. shmoot-sich-eh looft owss-lass-enn. Syn. Fr. for "ventilating pipe," otherwise termed "ventilator," *Tuyau d'aérage* or *de ventilation*—pron. twee-yoh dah-airr-ahj, vahn-tee-lah-see-yon; also *Tuyau d'éventéau* or *Ventilateur*, or *Aspirateur* (see above); also *Tuyau aérique*—pron. ah-airr-eek; Ger. *Luftrohr*; also *Windausgang*, or *eingang*; also *Dunstrohr* (*Dunst*, vapour). Syn. Fr. for "valve for ventilating pipe," to regulate the velocity of the current of air passing through it, *Soupape* or *Clapet* (flap, valve) *de tuyau de ventilateur*—pron. klah-pay; Ger. *Windrohrklappe*, or *Windrohrthürschel*—pron. tuehr-shell.

Verandah, in Domestic Architecture. A

covered way open at one side, surrounding or partly surrounding a house, generally at the level of the ground-floor. The feature of the verandah is a light roof projecting and sloping from the outside wall of house of a comparatively narrow width, open at the outside, and supported by small pillars placed at intervals in the ground. The eaves or gutter side of the verandah may be ornamented, and scroll brackets may spring from the upper part of the pillars, or creeping plants may be trained along the eaves and up the pillars to give decorative effects. The object of the verandah is to give outside access from one part of the house to the other without exposure to rain, etc., or to afford in hot climates a shaded and cool promenade. *Der.* Our word comes from the French *Vérande*—pron. vair-ahnd; Ger. *Veranda*—pron. vair-ann-dah; also *Vorbauwerk*—literally "the before building"—pron. forebough-vairrk.

Vermiculated Work, in Masonry. The surface of a stone which is tooled or worked so as to give projections having the waving appearance of worm-like objects is so called. *Der.* From the Latin *vermiculus*, a little worm. Syn. Fr. for "vermicular" or "vermiculated," *Vermiculé*—pron. vairr-mee-kueh-lay; Ger. *Wurmförmig*—pron. voorm-foehr-mich. Syn. Fr. for "vermiculated work," *Ouvrage vermiculé*—pron. oohv-rahj; also *Vermicure*—pron. vair-mee-kuuh-luhr; Ger. *Wurmlinienwerk*—pron. voorm-leen-yenn-vairrk. Syn. Fr. for "to vermiculate stone," *Pierre orner de vermicules*—pron. pee-air ohr-nay; Ger. *Stein wurmlinig behauen*—pron. stine voorm-leen-ich behow-enn.

Vestibule, in Domestic Architecture. An outer hall or lobby through which one has to pass to reach the inner hall or lobby proper. *Der.* Our term is the same in spelling as the French, and comes direct from the Latin *vestibulum*. Syn. Fr. *Vestibule*—pron. vaiss-tee-buehl; Ger. *Vorplatz vor der Hauptthüre*—literally "the front or place before the principal or head door."

Viaduct, in Construction. A structure of stone or brick which spans a valley or depression in the ground over which to carry a roadway nearly on the level of the two approaches. It is distinct from a bridge, the latter being generally confined to the arched structure which spans a river, railway, or waterway. *Der.* Our word comes from the Latin *via*, a way, and *ducere*, to lead or direct. Syn. Fr. *Viaduc*—pron. vee-ah-dukk; Ger. *der Viaduct*—pron. vee-ah-dookt.

Vibration, in Construction. A sign of weakness in parts moving or being capable of moving by the application of an exterior force, as that of the wind, which ought to

be stable (which see) or steady. *Der.* Our word *vibrate* comes from the Latin *vibrare*, *vibratum*, to move from side to side, to oscillate. Syn. Fr. for "to vibrate," *Faire l'oscillation*—pron. fair loss-seel-ah-seeyong, or *Faire vibrer*—pron. vee-bray; Ger. *Vibrieren*—pron. vee-breer-enn; also *Schwingen*—pron. shving-enn; also *Oscilliren*—pron. oss-sill-ear-enn. Syn. Fr. for "vibration," as of a beam, *Vibration d'une poutre*—pron. vee-brah-seeyon duehn pooh-terr; also *Frémissante* (from *frémisser*, to shake) *d'une poutre*—pron. fray-meese-ahngt; Ger. *Schwingung eines Balkens*—pron. shwing-oong ine-ess bahl-kenns. Syn. Fr. for "vibratory," *Vibratoire*—pron. vee-brah-twahr; Ger. *Schwingkraft*—pron. shwoong-hafft.

Vice, in Tools. A mechanical appliance by which objects in construction, as bars of iron or steel, or saw blades, are held fast and immovable while they are being worked and tooled. The vice of the ordinary kind consists of two parts—one, the fixed leg or standard, which is secured firmly and permanently, or for the time required, by a clamp piece secured to the board or working bench; the lower part of this rests on the floor, the upper part is widened out to form a jaw, the inner face of which is of hardened steel, and roughened somewhat like a file in order to give it a good grip of the body to be held in it. The other leg is jointed at its lower extremity to a lug made in the longer leg or standard, and is provided at its upper extremity with a jaw similar and corresponding to the jaw of the fixed leg. The outside leg, which is jointed to the fixed leg, is provided with a swell or flat circular part in which a screwed aperture is made. The screw which passes through this is jointed to the fixed leg, and in turning it round the jaw of the movable leg is brought nearer to or taken from the fixed leg, turning the screw by means of a handle passing through an eye made in the movable standard or leg. By a proper adjustment of the screw any object can be held fast as desired. Syn. Fr. for "vice," or screw-vice as it is sometimes called, *Étau*—pron. eh-toh; also *Vulet*—pron. vuh-lay; Ger. *Schraubenstock*—pron. shrowb-enn-stokk. Syn. Fr. for "vice bench," *Banc d'étau*; Ger. *Schraubebank*. Syn. Fr. for "small hand-vice," *Étau à main*—pron. ate-oh ah maihn; Ger. *Handschraubentock*—pron. hant.

View, in Architectural Drawing. A synonym for a drawing or picture of a building, applied almost exclusively to perspective drawings, whether ordinary or isometrical perspective. *Der.* Our word *view* comes from the French *vue*, from *voir*, and this from the Latin *videre*, to see. Syn. Fr. for "perspective view," *Vue perspective*—

pron. vueh pairr-spekk-teeve. Ger. *Perspektivaufriß* — pron. pairr-spek-teef-owff-riss, or *Fernsichtaufriß* — pron. fairrn-zicht. Syn. Fr. for “isometrical view,” *Vue isométrique* pron. eese-oh-may-treek; Ger. *isometrischer Aufriß* — pron. eeze - oh - may - trish - err. *Note.* — Isometrical differs from ordinary perspective, inasmuch as all the lines are as capable of being measured from an ordinary scale of equal parts as drawings made in the ordinary mode of plane, or orthographical projection—in plan, elevation, and section. This advantage does not belong to ordinary perspective, as there is no scale common to all the lines or parts. The term isometrical denotes that all the lines are of equal measurements, and the art proceeds on the theory that all the points of the object are viewed from an equal distance. Isometrical drawings of plans of houses and of details give very much the appearance of a solid model.

Villa, in *Domestic Architecture*. One of the classes of houses of a superior kind, approaching in extent and kind of accommodation to the large country mansion, and of more pretentious character in design and costliness of construction than the villa-cottage or cottage-villa. The villa proper is generally of the class of houses known as “detached”—that is, standing in and surrounded by its own grounds, which are usually more extensive than those of the cottage-villa or villa-cottage. It is, notwithstanding, now the practice to call many semi-detached large houses villas, and even some in streets are so distinguished. The villa proper has stables and outhouses connected with its grounds, as it is usually occupied by those possessed of means sufficient to keep a carriage. The lawn, the shrubbery, and ornamental garden, the flower and the kitchen garden, are all parts of the villa proper site and grounds; and if those are of sufficient extent, the approach to the house from the road is by a carriage drive, which is screened as much as possible from the house by shrubbery judiciously disposed. A villa may either be suburban or rural in position: properly it is a country house. *Der.* (same as “village”)—a small collection of houses in a country district—from the Latin *villa*, a farm or farmhouse, which is a contraction of *vicilla*, and which,

again, comes from, or is a diminutive of, *vicus*, a street. Hence arises our distinction of a “country villa,” a “town” and a “suburban villa.” Syn. Fr. *Maison de campagne*—pron. may-sohn deh kahm-pah-ceng — though the term “villa” is used much in France in the same sense as we employ it—pronounced, however, in accordance with the spirit of the language, *veelah*; also *Mesuage*—pron. mess-ueh-ajh; Ger. *Landhaus*—pron. lahnt - hüsse, a gap, an *Landwohnung* (*Wohnung* dwelling-house)—pron. voh-noong.

Vista, in *Garden Design and Architecture*. An opening judiciously made in a garden wall or in a clump or plantation of trees, or skilfully taken advantage of if natural, through which a distant view of the country or scenery behind may be obtained. In laying out the grounds, or in deciding upon the site of a large villa or mansion, the architect may show his taste and skill in so arranging them that a great point of attraction in the property may be obtained. The point is not always thought of, as may be witnessed in some cases, where the house turns, so to say, its back upon what is naturally a very lovely view. *Der.* Our word vista comes from the Italian, and this from the Latin *videre*, to see. Syn. Fr. *Echappée de vue* — pron. eh-sha-ppay deh vueh; also *Claire vue* or *voie* (“clear view or way”) — pron. klairr vwah; Ger. *Feld-aussicht* (“field outlook”) — pron. felt-owss-zicht; also *Aussichtücke* (*Lücke*, a gap, an opening)—pron. owss-zicht-luek-keh.

Void, in *Building*. A term used to indicate open spaces or apertures left in the walls of a structure, as the openings for windows, doors, etc. *Der.* Our word comes from the Latin *viduus*, or, perhaps, more directly from the French *vide*, both terms meaning empty, vacant. Syn. Fr. for “void,” *Mur vide*—pron. muuhr veed, or simply *Vide*; Ger. (for “window or door void”) *Fensteröffnung* or *Thüröffnung*—pron. fenn-stare- or tuehr-oef-noong.

Voussoirs, in *Masonry*. The wedge-shaped stones which are used in the building of an arch. Syn. Fr. *Voussoir*—pron. vooch-swahr; also *Vousseau*—pron. vooch-soh; Ger. *Gewölbekeilstein* (*Keil*, a wedge)—pron. gay-voehl-beh-kile-stine.

W

Wainscoating or Wainscoting, in *Building and Painting*. The lining or covering of walls where wood is used, being frequently ornamented with panelled or carved work. A term also used by painters to indicate that the wall surface is grained to imitate oak, oak being the

wood formerly used, or chiefly so, for lining the walls of rooms. *Der.* From, or a corruption of, the German *Wagenschot*, waggon-shell or covering, this being of oak. Syn. Fr. for “wood for wainscoting,” *Lambrisage*—pron. lah-m-bree-sahj, or *Boissage*—pron. bwah-sahj; also *Bois de lambris* (*lambris*,

lining of a room)—pron. bwah deh lahm-bree, or *Bois à mur paneaux*—pron. bwahze ah muehr pah-noh; Ger. *Wagenschot*—pron. vah-genn-shott, or *Wagenschoss*. Syn. Fr. for "wainscoting," *Lambris*—pron. lahm-bree; also *Boisage*—pron. bwah-sahj, or *Boiserie*—pron. bwahz-eh-ree; Ger. *Wandbekleidung* (wall-clothing)—pron. vahnht-beh-kly-doong; also *Getäfel*—pron. geh-tay-fel. Syn. Fr. for "wainscot," *Bois de chêne*—pron. shayn; Ger. *Eichholz* or *Eichenholz*—pron. iche-hollts, eye-chen-hollts.

Waling, in *Foundation Work and Carpentry*. The longitudinal pieces used in piling work, as in cofferdams and the like, to connect the piles together at the head. Syn. Fr. for "waling of piling work," *Moise d'ouvrage en pilotis*—pron. moh-eeze doohv-rahj ahn pee-loh-tee; Ger. *Bandbalken des Pfahlwerks*—pron. baut-bahl-kenn dess pfahl-vairrks.

Wall, in *Masonry and Brickwork*. A structure in stone or brick the height of which generally greatly exceeds its thickness or breadth in plan or edge or upper face. Its design is to inclose space to afford shelter from the elements, or protection from attacking foes, as in the case of walls of fortifications. Der. The name is allied to the Latin *vallum*, a wall; but both in spelling and meaning it is identical with the Old English *wall*. Syn. Fr. for "wall," *Mur*—pron. muehr, or *Muraille*—pron. muehr-isse; Ger. *Mauer*—pron. mow-airr. Syn. Fr. for "to wall up"—that is, to inclose a space within or by walls," *Entourer de murs*—pron. ahn-too-ray deh muehr; also *Clore* or *Entourer* or *Renfermer avec des murs* (*clorre*, to inclose)—pron. kloar, ahn-toor-eh or rahnn-ferr-may ah-vek day muehr, or *Closée en murs*—pron. kloh-zay; also *Enceindre de murs*—pron. ahn-saihn-derr; Ger. *mit Mauern einschliessen*—pron. mit mow-airrn ine-shleess-enn, or *mit einer Mauer enthalten*—pron. ent-hahlt-enn. Syn. Fr. for "inclosing walls," *Murs d'enceinte*—pron. dahn-saiht; Ger. *Einhägung von Mauerwerk*—pron. ine-haig-oohng fon mow-err-vairrk, or *Umfangmauer* (*Umfang*, *enceinte*)—pron. oohm-fang. Syn. Fr. for "a wall breast high," *Mur appui*—pron. ah-pwee, or *Mur de parapet*—pron. pah-rah-pay, or simply *Parapet*; Ger. *Brüstungsmauer*—pron. bruest-oongs-mow-err. Syn. Fr. for "a wall with batter" (see *Batter*), *Mur gauchissante*—pron. goh-shee-sahnt; also *Mur bouclé*—pron. booh-klay, or *Mur forjetée*—pron. forzhett-eh; Ger. *Mauer mit Bächen*—pron. boy-kenn, or *ausgebauchte Mauer*. Syn. Fr. for "the principal wall of a building," *Gros mur*—pron. groh, or *Maitre mur*—that is, "master wall"—pron. may-terr; also *Maitresse muraille*—that is, "mistress wall,"—pron. may-tress muehr-ahil; Ger. *Hauptmauer*—i.e. "headwall"

—pron. howpt. Syn. Fr. for "a blind wall"—that is, an expanse or surface of wall without any voids (see *Void*) or window, door or other openings or apertures in it—*Mur sans jours*—i.e. without daylight or openings—pron. sahn joohr; Ger. *Mauer ohne Thür- und Fensteröffnungen*—pron. oh-neh tuehr oohnt fenn-sterr-oeff-noong-enn. Syn. Fr. for "drystone wall"—that is, a wall built with stones set without mortar, the bond being secured by interlocking the stones one with another—*Mur en pierres sèches*—pron. muehr ahn pee-airr saish; also *Mur pierrée*—pron. pee-airr-eh; Ger. *Mauer mit Steinen ohne Mörtel*—pron. mow-err mit stine-en oh-neh moerr-tel; also *Steinpackung ohne Mörtel*—i.e. stone-packing without mortar—pron. stine-pah-kooohng; also *trockene Steinmauer*—pron. trok-kenn-eh stine-mow-err. Syn. Fr. for "stone wall," *Mur en pierres*; Ger. *Steinmauer*. Syn. Fr. for "brick wall," *Mur en briques*—pron. ahn breek; Ger. *Ziegelstein* or *Backsteinmauer*—pron. tsee-gell-stine or bakk-stine. Syn. Fr. for a "double wall," *Mur avec une cavité*—pron. ah-vek uehn kah-veeh-tay, or *Mur double*—pron. dooh-bell; Ger. *Doppelmauer*—pron. dop-pell; also *Maueraushöhlung*—pron. owss-hoehl-oong. Syn. Fr. for "outer wall," *Mur extérieur*—pron. ex-tare-ee-yeuhr; Ger. *Aussenmauer*—pron. owss-enn. Syn. Fr. for "inside wall," *Mur intérieur*—pron. in-tare-ee-yeuhr; Ger. *innere Mauer*—pron. in-nerr-eh. Syn. Fr. for "retaining wall," for inclosing or facing soil or earth work behind, as in a road cutting, *Mur de revêtement*, or *à talus*—pron. deh reh-vait-mahn, ah tah-lueh; Ger. *Futter* (a lining wall)—pron. foot-terr, or *Futtermauer*. Syn. Fr. for "face of a wall," *Face de mur*—pron. fahss; Ger. *Mauerstern*—pron. mow-err-stairrn, or *Sternseite*—pron. site-eh. Syn. Fr. for "back of wall," *Dos de mur*—pron. doh; Ger. *Rückseite der Mauer*—pron. ruehk-zite-eh. Syn. Fr. for "walling," *Ouvrage en murs*—pron. oohve-rahj; also *Maçonnerie pour les murs*—pron. mah-sonn-err-ee poohr lay; also *Murage*—pron. muehr-ahj; Ger. *Mauerwerk*—pron. mow-err-vairrk. Syn. Fr. for "materials for building walls," *Matériaux pour la construction de murs*—pron. mah-tare-ee-oh poohr lah kohn-struek-seeyon day; Ger. *Mauerwerk Materialien*—pron. mah-tairr-ee-ahl-yenn. Syn. Fr. for "wall timber," such as wall plates, wall wood bricks, bond timber, etc., *Bois pour la construction de murs*—pron. bwah; Ger. *Holzmaterialen für Mauerwerk*—pron. hollts.

Wall-plate. A piece of timber rectangular, but small in section—as say 6 in. by 4 in.—built into the wall or resting, in the case of ground or basement floors, on sleeper walls carried up from the ground. The office of the wall-plate is to afford a bearing surface for the ends of joists, which

are coggled on to it. Syn. Fr. *Sablère*—pron. sah-blee-aire; also *Filet de bois*, or *de mur dormant*—pron. fee-lay deh bwah, or muhr dorr-mahn; Ger. *Holzplatte der Mauer*—pron. holts-plat-teh dare mow-err; also *Fussbodenbalken Holzplatte*—pron. fooss-boh-denn-bahl-kenn.

Wardrobe, in Cabinet Making. A piece of bedroom furniture designed to hold clothing. It is high enough to allow of at least one compartment in which dresses can be hung or suspended without being folded up, other compartments being filled with shelves and drawers. Wardrobes are generally made with a central door, usually furnished with a mirror, and with two side doors, the whole being of a design more or less elaborate. Der. The word ward is from the Old English *weardian*, to keep, to defend from—so that the piece of furniture is one which wards off or defends from intruders the robes or clothes locked up in it. Syn. Fr. *Grand armoire* (a cupboard, press)—pron. grahd ahr-mwahr; Ger. *Kleiderschrank* (*Schrank*, a cupboard, Scotticé press)—pron. kly-derr-shrahkh.

Warp, in Wood. When a plank or board, which was originally quite flat, becomes more or less curved or twisted on the face, so that one part will be partly curved, the other flat, or one with two curved parts, but of contrary flexure, or so bent in opposite directions that it will not lie steady but rocks or lies unsteady, the plank or board is said to be "warped." Der. Our word warp comes from the Old English *weorpan*, to turn or twist from a straight line or course. Syn. Fr. for "to warp," *Se courber*—pron. seuh koohr-bay, or *Se défléchir*—pron. day-flay-sheer; also *Bois se gauchir*—pron. bwah goh-sheer, or *Se cambre*—pron. kahm-bray, or *Se déjeter*—pron. day-jhet-ay; Ger. *Windschief werden*—pron. vind-sheef; also *Windisch werden*—pron. vinn-dish. Syn. Fr. for "warped wood," *Bois déjeté*—pron. bwah day-jhet-tay, or *Bois gauché*—pron. goh-shay, or *Bois courbé*—pron. koohr-bay; Ger. *geworfenes Holz*—pron. gay-vorr-fenn-ess holts. Syn. Fr. for "warping in wood," *Bois courbasse*—pron. bwah koor-bass-ahj; also *Gauchissage*—pron. go-sheess-ahj; also *Gondolage*—pron. gohn-doh-lahj; Ger. *Windschiefsein*—pron. vind-sheef-zine; also *Werfen des Holzes*—pron. vairr-fenn dess holts-ess.

Washhouse, in Domestic Architecture. An apartment fitted up with all the appliances required for washing the clothing of the household. Der. Our word is either from the Old English *wascan* or the German *waschen*, to cleanse the body with water. Syn. Fr. for "washhouse," *Lavoir*—pron. lah-vwahr; Ger. *Waschkhaus*—pron. vahsh-howss. Syn. Fr. for "washstand," the table for holding the basin and appliances useful

in personal ablutions, *Lavabo*—pron. lah-vah-boh; Ger. *Waschtafel* or *Waschtisch*—pron. vahsh-tah-fell, or -tish.

Washboard, in Joinery. A synonym for "skirting-board" (which see).

Waste Pipe, in Drainage and Sewerage Work. The pipe applied to a water cistern to carry off the surplus water and to prevent it flowing over the edges, or the discharge pipe of a water-closet. Der. Our term waste comes from the Old English *westan*, to diminish or wear away by degrees or minute quantities. Syn. Fr. for "a cistern waste pipe," *Tuyau de déchargement*—pron. twee-yoh deh day-shahrij-mahn, or *Tuyau d'évacuation*—pron. daive-ah-kueh-ah-seeon; also *Tuyau pour le décharge d'excès de l'eau*—pron. poor leh day-shahrij deck-say deh loh, or *Tuyau de décharge d'une citerne*—pron. duuhn see-tairrn; Ger. *Ausgangsröhre einer Wassercisterne*—pron. owss-gahng-roch-reh ine-err vahs-serr-sis-tairr-neh.

Water Pipe, in Plumbing. A leaden or iron pipe to convey water to a building. Der. Our term water was spelt precisely the same in Old English. Syn. Fr. *Tuyau de l'eau*—pron. twee-yoh deh loh; Ger. *Wasserröhre*—pron. vahs-serr-roeh-reh. Syn. Fr. for "to lay water on to a house," *Alimenter l'eau à la maison*—pron. ah-lee-mahn-tay loh ah lah may-zohn; Ger. *Wasser im Haus anlegen*—pron. imm howss-ann-lay-genn. Syn. Fr. for "underground water" in foundation work, *Eau souterraine*—pron. oh soo-tair-rain; Ger. *Grundwasser*—pron. groohnd-vahs-serr. Syn. Fr. for "water (or hydraulic) cement"—i.e. cement which sets or hardens under or in water—*Ciment hydraulique*—pron. see-mahn hee-droll-eek; Ger. *Wasser* or *hydraulischer Kitt*—pron. hee-drowl-ish-err kitt. Syn. Fr. for "water mortar," *Mortier hydraulique*—pron. mohr-tee-ay; Ger. *Wassermörtel*—pron. vass-err-moer-tell. Syn. Fr. for "water-closet," in plumbing and sanitary work, *Cabinet d'aisance*—pron. kah-bee-nay day-zahnce, or *Cabinet inodore*—pron. ee-noh-door; or simply *Cabinet*; also *Latrine*—pron. lah-treen; also indicated by the following: "0" (number nothing), "100" (*numéro cent* or one hundred), or "Ici" (here). Ger. *Wasserschlussabtritt*—pron. vahss-err-shlooss-ahb-tritt, or, more frequently, simply *Abtritt*; also indicated by "0," "*hier*" (here), or "100." Syn. Fr. for "waterproof roof," *Comble hydrofuge*—pron. kohm-bell hee-droh-fuehj, or *Comble imperméable à l'eau*—pron. aihm-pair-may-ah-bell ah loh; also *Comble imbrifuge*—pron. aihm-bree-fuehj; Ger. *wasserdichtes Dach*—pron. vahs-serr-dich-tess dahch; also *wasserfestes* or *regendichtes* (rain-tight) *Dach*—pron. ray-genn-dicht-ess. Syn. Fr. for "water reservoir," *Réservoir d'eau*—pron. ray-zare-vwahr doh, or simply *Réservoir*; Ger. *Wasser-*

behälter—pron. vahs-serr-beh-hell-terr. Syn. Fr. for "water cistern," *Citerne d'eau*—pron. see-tairrn; Ger. *Wassercisterne*—pron. vahs-serr-siss-tairrn-neh. Syn. Fr. for "water tank," *Caisse pour l'eau*—pron. kayss poor loh; Ger. *Wasserkasten*—pron. vahs-serr-kass-ten. Syn. Fr. for "watering or sprinkling"—otherwise termed slaking—"of burnt or calcined limestone," *Arrosement du calcaire calcinée*—pron. ah-rosse-mahn duuhl kahl-kair kahl-see-nay; Ger. *Wässerung von verbranntem Kalkstein*—pron. vahs-serr-oong fonn fairr-brahnnt-em kahlk-stine (*calcini- ren* [kahl-see-neer-enn], to calcinate). Syn. Fr. for "water channel," *Canal d'arrosage*—pron. kah-nal dah-ross-ahj; Ger. *Wasserinne*—pron. vahs-serr-rin-neh, or *Wasserkanal*, or *Wasserausflussbett*—pron. owss-flooss-bett.

Water Spouts, otherwise termed "gurgyles." The parts of stone, with holes or apertures through them, designed to carry off the rain-water from the gutters of the roof. They form a characteristic feature of *Gothic architecture*, the old builders of which seem to have revelled in the strangest, weirdest, and generally the most thoroughly grotesque forms which they could give to this part of their work. The forepart of a griffin with extended claws claspings the stone tube is a common form for the gargoyle. Syn. Fr. for "water spout," in the architectural sense, *Gargouille*—pron. garr-goo-eel; Ger. *Dachrinne* or *Speidradchen*.

Water Table, in *Building*. The sloped part, often of splayed bricks, of the plinth or base of a building, forming a set-off near the ground or face of wall, by which rain-water is passed from the wall to the ground, so as to prevent it from lodging at the joint. The term is also applied to any projecting part of a wall below its main face, so as to carry safely the part above it. Syn. Fr. *Platte à l'eau pour un mur*—pron. plaht ah loh poor uehn muhr; also *Surface oblique d'un plinthe*—pron. snehr-fahss oh-bleek duehn plaingt; also *Glacis d'un plinthe*—pron. glah-see; Ger. *Wassertafel einer Mauer*—pron. vahs-serr-tah-fell ine-err mow-air.

Weather, **To**, in *Masonry and Joinery*. A term used to indicate the sloping of the upper surface of a projecting part, as a window-sill, from the inner side to the outer edge, in order to throw off the rain-water as it falls upon the surface. *Der*. Our word weather comes from the Old English *weder*, or the German *wetter*. Syn. Fr. for "to weather" in masonry, *Abriter les pierres*—pron. ah-bree-tay lay pee-airr; Ger. *Steine auswettern*—pron. stine owss-vett-ern. Syn. Fr. for "weather sill or eill," *Larmier seuil de fenêtre*—pron. lahr-mee - yea seuhil deh fay - nay - terr; also *Rejeteau* or *Réverseau d'une fenêtre*—pron. ray - jhett - oh, ray -

vairr-soh; Ger. *Abwässerung einer Fenster-schwelle*, or *Fenstersohle*, or *Fenstersohlbank*—pron. ahb-vess-err-oong i-nerr fen-sterr-shvel-leh, -zoh-leh, -zohl-bank. Syn. Fr. for "weather boarding," used to protect a building or parts during construction (the boards are generally feather-edged when used to protect or form the sides of a wooden or timber structure), *Planches abri-tants les parties d'une maison en construction*—pron. plahnsh ah-bree-tahn lay pahr-teeahn kohn-strook-see-on; Ger. *Wetterbretter an einem Bau*—pron. vett-err-brett-err an i-nem bow. Syn. Fr. for "weather moulding," *Mouchette d'une corniche*—pron. mooch-shett duehn kohr-neesh, or simply *Mouchette*; also *Larmier* or *Couronne d'une corniche*—pron. lahr-mee-yea, koo-ronn; Ger. *Kranzleiste*—pron. krants-lice-teh; also *Deckplatte*—pron. dekk-plah-teh; also *Rinnleiste*—pron. rinn-lice-teh. Syn. Fr. for "weathering," *Glacis d'une surface*—pron. glah-see duehn suehr-fahss; also *Une surface oblique*, or *en pente*—pron. uehn suehr-fahss oh-bleek, ahn pahnt; Ger. *Abwässerung einer Fläche*, or *Oberfläche*—pron. ahb-ves-serr-oohng i-nerr flech-eh, oh-berr-flekh-eh.

Wedge, in *Construction*. A body made in the form of a double inclined plane, the two planes being placed base to base. A wedge is used for a wide variety of purposes—for cleaving or splitting or rupturing materials, as timber or stone, or for raising parts, such as the centre of an arch, by driving the wedges hard up, or lowering it by driving them out or by easing them. Wedges are also used as keys for securing one part to another which are jointed. They are more generally called "keys" when used for this purpose; and these are not made with both sides sloping—one only being so, the other flat. Wedges and keys are made of wood or of iron. *Der*. Our word comes from the Old English *weeg*, a piece of wood with two sloping surfaces running from or forming a thick end to a fine sharp edge. Syn. Fr. for "wedge," *Coin*—pron. kwahn; also *Lingot*—pron. laihn-goh; Ger. *Keil*—pron. kile; also *Klumpen*—pron. kloom-penn. Syn. Fr. for "wooden wedge," *Coin de bois*—pron. kwahn deh bwah; also *Rabot*—pron. rah-boh; Ger. *Holzkeil*—pron. holts-kile, or *hölzerner Keil*—pron. hoehl-tserr-nerr-kile. Syn. Fr. for "iron wedge," *Coin de fer*—pron. kwahn deh fairr; Ger. *Eisenkeil*—pron. ize-enn-kile. Syn. Fr. for "wedge key," *Clef*—pron. klav; Ger. *Keil*. Syn. Fr. for "wedge used in lowering the centre (framing) of an arch," *Coin de dé-cintrement d'un arc*—pron. kwahn deh day-saihn-terr-mahn duehn ark; Ger. *Bogenkeil*—pron. boh-genn-kile; also *Keil des Zir-kelbogens*—pron. kile dess tseer-kell-boh-genns. Syn. Fr. for "wedging or wedging up," *Coinage*—pron. kwahn-ahj; also *Coin-*

gage—pron. kwahn-sahj; Ger. *Verkeilen*—pron. ferr-kile-enn.

Weight, Dead, in Construction. A term used to denote the amount of weight or pressure put upon a structure in a state of rest. *Der.* Our term "weight" is from the Old English *wiht*, that which is heavy. Syn. Fr. for "dead weight," *Poids mort*—pron. pwah mohr, or *Poids actuel*—pron. pwahd akk-tueh-ell; Ger. *eigenes Gewicht* (*eigen*, proper, self)—pron. eye-genn-ess geh-vicht (ch guttural, see Dissertation); also *Wicht-thätig*—pron. vicht-tay-tich. Syn. Fr. for "weight or specific gravity of materials," *Pesanteur* or *Poids spécifique des matériaux*—pron. pay-sahn-teuhr or pwah spay-see-feek day mah-tair-ee-yoh; Ger. *Schwere des Holzes*—pron. shvair-eh des hollts-ess. Syn. Fr. for "weight (balance) for a sash-window," *Poid* or *Cylindre de fer d'un châssis à coulisse*—pron. pwah or see-lainderr deh fair duehn shass-ee-se ah kooheleece; Ger. *Wicht* or *Eisencylinder eines Schiebefensters*—pron. vicht or ize-enn-see-linn-derr i-ness shee-beh-fenn-stairce. Syn. Fr. for "window sash-weight cord," *Corde pour le poids d'un châssis à coulisse*—pron. korrd; Ger. *Wichtschnur eines Schiebefensters*.

Weir, in Masonry. The structure built across a stream or watercourse to dam up the water to a certain level, and over which the overplus flows in time of flood-water, or when the water is not being used, as to turn a waterwheel. Syn. Fr. *Déversoir de l'eau*—pron. day-vair-swahr deh loh; Ger. *Wasserüberfall*—pron. vahss-err-ueh-berr-fahl.

Well, Water, or Spring-water Well, in Construction. The excavation or pit, generally circular in section or round in form, dug in the soil to intercept or catch and collect the water of a spring. Syn. Fr. *Puits*—pron. pwee; Ger. *Brunnen*—pron. brooh-nenn. Syn. Fr. for "the aperture or opening of a well," *Bouche de puits*—pron. boosh; Ger. *Brunnenhöhle*—pron. brooh-nenn-hoeh-leh. Syn. Fr. for "well sinking," *Pomperie*—pron. pohm-peh-ree; also *Fontainerie*—pron. fohn-tay-ner-ree; Ger. *Brunnengraben*—pron. brooh-nenn-grah-benn; also -*sinken*. Syn. Fr. for "a well sinker" (a trade), *Puisatier*—pron. pweeze-ah-tyay; also *Fontainier*—pron. fohn-tane-yea; Ger. *Brunnengraber*—pron. broon-nen-gray-berr, or *Brunnenbauer*—pron. broon-nen-bow-err.

Well of a Staircase, in Construction. The enclosed or open space reaching from one floor of a building to another, in which the stairs or staircase is erected. Syn. Fr. *Cage d'escalier*—pron. cahj dess-kahl-yea; Ger. *Treppenhaus*—pron. trepp-enn-house. Syn. Fr. for "well-hole of a staircase," *Puits*; Ger. *Treppenloch*. Syn. Fr. for "a well

staircase," *Escalier à limaçon*—pron. ess-kahl-yea ah leem-ah-son; Ger. *Schnecken-treppe*—pron. shneck-enn-trep-peh.

Whetstone, or Setstone, or Sharpening Stone, in Tool Appliances. A peculiar kind of stone used for giving a cutting edge to tools (see Setstone). Syn. Fr. *Pierre à aiguiser*—pron. pee-air ah ay-gwee-zay, or *Pierre à rasoir*—pron. rah-zwahr; Ger. *Schleifstein*—pron. shlife-stine; also *Wetzstein*—pron. vetts-stine, or *Abziehstein*—pron. ahh-tsée-stine.

White Lead, in Painting. A carbonate of lead commonly called "white paint," not only used for such when white-coloured surfaces are required, but largely employed as a basis for mixing up other colours, as it not only is fixed or fast, but gives what is termed a "body" to the colour with which it is mixed. This makes it yield a paint or colour which looks thick or solid, so that the surface below will not show through, or the finished surface look thin and streaky. As a chemical composition it is highly objectionable from a sanitary point of view, the lead acting on the system of those daily handling and using it, inducing the peculiar disease known as the "painters' colic." On this account a white paint, known as "zinc white," has been introduced to supersede the white lead, but though it possesses a fine pure white colour, it lacks the "body" which gives the value to its rival, so that it is but comparatively little used. *Der.* Our word white comes from the Old English *hwit*, that which has no colour, or is pure or clean. Scientifically considered, white is not a colour, absorbing none but reflecting all, just as black is no colour, as it absorbs all and reflects none. Syn. Fr. for "white lead or paint," *Céruse*—pron. sair-ueze; also *Blanc de plomb*—pron. blahng deh plohm, or *Plomb blanc*; also *Blanc de céruse*; Ger. *Bleiweiss* (*Blei*, lead)—pron. bly-vice (this, however, is more used chemically in this form, as "sugar of lead"); also, inverted, *Weissblei*.

Whitewash. A colouring liquid cheaply and easily applied to walls of common structures, outbuildings, and the like, made of what is called "whiting," in some districts "whitening," a washed preparation of lime or chalk. Syn. Fr. *Lait de chaux*—pron. lay deh show, or *Lait de chaux blanc*; also *Eau à blanchir*—pron. oh ah blahn-sheer; also *Echaudage*—pron. eh-show-dahj; Ger. *Weisse*—pron. vice-eh; also *Kalkbrühe* (*Brühe*, broth, soup)—pron. kahlk-brueh-eh, or *Kalkmilch*—pron. kahlk-milch; also *Tünche*—pron. tuehn-cheh; and also, as an intensification of the term, *Weisstünche*, "white whitewash." Syn. Fr. for "white-washing," *Peinture en lait de chaux*—pron. painn-tuehr ahn lay deh show, or *Bain de chaux*—pron. bain, or *Mise au bain de*

chaux—pron. meeze oh; also *Badigeonage*—pron. bah-dee-jhon-ahj (this latter term, however, is, strictly considered, not connected with whitewashing, as the term means painting with stone colour—that is, the same medium as whitewash, with a yellow colouring-matter, as chrome-yellow, added in sufficient quantity to give the appearance of a stone); Ger. *Kalkmilchanstrich*—pron. kahlk-milkh-ann-strich, or *Weissanstrich*—pron. vice-ann-strich; the more correct term, however, is *Weissen* alone. Syn. Fr. for “whitewash brush,” *Pinceau pour le lait de chaux*—pron. pahnn-soh poor leh lay deh show; Ger. *Maurerpinsel für Weissen*—pron. mow-rerr-pin-zell fuehr vice-enn. Syn. Fr. for “whitewasher,” *Badigeonneur*—pron. bah-dee-jhon-neuhr; Ger. *Weissanstreicher*—pron. vice-ann-strych-err.

Wicket or Wicket Gate, in Joinery or Carpentry. A small light gate which opens into a side path or a field. *Der.* The word seems to be a corruption of wicker—i.e. made of twigs of trees or of willow wands, precisely as they may be seen to be made this day in our large forests, as those of the Continent. The word wicker comes from the Icelandic *widir*, adopted in the Old English phraseology. Syn. Fr. for “wicker,” *Ostier*—pron. oze-yea (which word alike in spelling we have adopted); Ger. *Weide*—pron. vide-eh. Wicket gates are also adapted to the large entrance doors or gates of mansions and public places, by which entrance is obtained by passengers without the labour of opening or having opened the larger doors or gates. In such cases this convenience is called a “wicket door,” or simply a “wicket.” Syn. Fr. for “wicket gate,” an opening in a fence or wall, *Visière*—pron. veeze-yair; also *Guichet*—pron. ghee-shay (g hard, as in gold); Ger. *Pfortchen eines Gatterthors* (*Gatter*, a gate; also *Pforte*, or *Schlag*, or *Thor*, or *Haltung*: a gateway is *Gatterthür*)—pron. pfœhrt-chenn ine-ess gat-terr-toarrs; also *Guckfenster*. This latter term, however, is properly a small window in a gate, and comes from the verb *gucken*, to look or to peep through—that is, *Guckfenster* is the small window fence or wicket which is opened to let the gatekeeper see whether the person is proper to be admitted by the wicket gate proper. Syn. Fr. for “wicket in a large door,” *Guichet de porte*—pron. ghee-shay deh portt; Ger. *kleine Thür in einem Thor*—pron. kline-thuehr in ine-em tohr.

Widening, in Construction. A term often used for enlarging, in the sense of making broader, as widening of the trenches if a foundation, widening the surface covered by boards, or widening boards. *Der.* Our word wide comes from the Old English *wid*—that is, broad, of large surface or extent.

The term width is from the German *weite*, or the Icelandic *vidd*—that is, the extent or breadth from one side of an object to another. Syn. Fr. for “width,” *Largeur*—pron. lahr-jheur; Ger. *Weite*—pron. vite-eh; also *Breite* (breadth)—pron. brite-eh. Syn. Fr. for “widening,” *Aggrandissement*—pron. ah-grahn-deeze-mahn, or *Elargissement*—pron. eh-lahr-jeess-mahn; also *Amplification*—pron. ahm-plee-fee-kah-see-enn; Ger. *Erweiterung*—pron. err-vite-err-oohng, or *Vergrößerung*—pron. ferr-groess-err-oong. Syn. Fr. for “width in the clear” (a term to indicate the full width or breadth of space between the inner sides or faces of two parts opposite to each other, as the piers of an arch, the jambs of a door void or opening, etc.), *Largeur dans œuvre*—pron. lahr-jheur dahuz euh-verr; Ger. *Weite zwischen zwei Seiten*—pron. vite-eh tzvish-enn tsvy zite-enn; also *Lichtweite eines Raumes*—i.e. “the light-width”—clear open extent of a space or void or a room)—pron. leecht-vite-eh ine-ess rowhm-ess. Syn. Fr. for “width of a void,” as the opening for a door or window, or door in a wall, *Largeur de jour*—pron. lahr-jheur deh jhour; also *Echappée*—pron. eh-shah-pay (from *échapper*, to escape)—literally “an open void or space through which light can slip or pass, or through which one can escape from an inclosed space”; Ger. *Lichtweite einer Oeffnung*—i.e. “light-spread of an opening”—pron. licht-vite-eh ine-err oeff-noong. Syn. Fr. for “width of a door,” *Echappée d'une porte*; Ger. *Lichtweite einer Thür*. Syn. Fr. for “width of a window,” *Echappée d'une fenêtre*; Ger. *Lichtweite eines Fensters*. The term *Ouverture*—pron. ooh-vair-tuehr—is also used in place of *Echappée*; thus *Ouverture d'une porte* or *d'une fenêtre* means width of door or window void or space, the alternative phrase in German being *Thürweite* or *Fensterweite*. Syn. Fr. for “to widen,” as a hole or trench, *Elargir*—pron. eh-lahr-jeer, or *Élargir*—pron. eh-vah-zay; also *Agrandir*—pron. ah-grahn-deer; Ger. *Weitermachen*—pron. vite-err-mach-enn; also *Erweitern*—pron. err-vite-errn; also *Ausweiten*—pron. owss-vite-enn.

Winch, in Tools and Appliances. The mechanical arrangement by which bodies are raised by means of ropes, pulleys, and guys. It consists of a long wooden barrel or drum of comparatively small diameter, the ends of which are provided with iron journals which are supported by and revolve in the bearings of the framework, which with this barrel constitutes what is called a winch. A crank handle at one end, or, as generally arranged, handles at both ends are secured to the journals by which the barrel is made to revolve, either winding on or wrapping round its surface or unwinding

or unwrapping from it a rope. This rope is led over a pulley, the block of which may be attached to a beam resting on a part of the building to which the heavy objects are desired to be raised or lifted, or the pulley-block may be secured to the upper end of a guy or a crane, to which also the winch may be secured at foot. The other or free end of the rope is that by which it is secured to the object to be lifted or raised. *Der.* The name winch is from the Old English *wince*, a circular part or reel upon which thread was wound. Syn. Fr. for "winch," *Manivelle du bourrique*—pron. mah-nee-vell dueh boor-eek, or *Manivelle du dividoir*—pron. dee-veed-dwahr; Ger. *Haspel*—pron. hass-pell. Syn. Fr. for "winch handle," *Manche* or *Lévier de manivelle du bourrique*—pron. mahsh, lev-yea; Ger. *Haspelhändel*—pron. hass-pell-hann-dell, or *Haspelhandhabe*—pron. hant-hah-beh.

Winder, of a Staircase. A step the sides of which are not parallel, but one—the front edge of step—is placed obliquely to the other, so as to give a step one end of which is broader than the other. The winders of a staircase are so called as they cause the foot-holding surfaces or steps to wind round the well-hole, or to change their direction, as they increase or ascend in height. They are used only where the well-hole and the steps are so arranged in relation to each other that the height cannot be obtained by using parallel landings, which are the best and most convenient for changing the direction of the steps. Winders are always inconvenient—often, when they narrow off at the inner end nearest the newel post to almost nothing, very dangerous. Winders are most frequently met with in small houses, where the space for the rise of the staircase can only be made in a confined way. Their presence is always evidence of a badly designed staircase. Syn. Fr. for "winder" or "winding step," *Marche tournante*—pron. marrsh toorn - aunt, or *Marche dansante*—pron. dahn - saunt; Ger. *Wendelstufe* (*Stufe*, step)—pron. venn - doong - stooch - feh, or *Wendeltrittstufe* ("tread-step")—pron. tritt; also *Wendeltreppe*—pron. venn-dell-trepp-eh. Syn. Fr. for the "inner or narrower end of a winder or winding step," *Collet de marche* (from *col*, a neck)—pron. koll-eh deh marrsh; Ger. *inneres Ende der Wendeltrittstufe*—pron. inn-err-ess enn-deh dare venn-dell-tritt-stooch-feh.

Winding, in Construction. A term which has for its synonyms "off the flat" or "off the straight line," curved or bent. *Der.* The term wind comes from the Old English *windan*, to turn round repeatedly, to coil up, as cord round a stick. Syn. Fr. for "to wind," *Tourner*—pron. toohr-nay; also *Dévider*—pron. day-veed-eh; also *Entortiller*

—pron. ahh-torr-teel-yea; Ger. *Einfahren*—pron. ine-fah-renn; also *Aufwinden*—pron. owff-vinn-denn. Syn. Fr. for "to wind up" or "hoist," as with a winch or windlass, *Guinder*—pron. gaing-day; Ger. *Winden*—pron. vinn-denn. Syn. Fr. for "winding in wood," *Sinuosité du bois*—pron. seen-ueh-oh-zee-tay dueh bwah; Ger. *Holzwindung*—pron. hollts-vinn-doong. Syn. Fr. for "to take out the winding" or "to make flat or straight," *Dégauchir*—pron. day-goh-sheer; Ger. *Einrichten*—pron. ine-richt-enn; also *Rechtmachen*—pron. raycht-mach-enn. Syn. Fr. for "winding staircase," *Escalier tournant*—pron. ess-kahl-yea toohr-natn; Ger. *Wendeltreppe*—pron. venn-dell-trep-keh. Syn. Fr. for "winding rule" or "straight-edge," in joinery, for testing the lines of pieces of wood in taking out the winding, *Réglet* or *Réglet double*—pron. ray-glai dooh-bell; Ger. *Richtlineal* or *doppeltes Richtlineal*—pron. richt-lee-nee-ahl, dopp-pel-tess.

Windlass, in Tools and Appliances. A machine for hoisting up or for dragging along with ropes or chains and pulleys, on the principle of the winch, but arranged with toothed-wheel gearing for modifying the speed of the winding-up barrel, or that on which the hoisting or dragging rope or chain is wound. Syn. Fr. *Treuil*—pron. treu-eel; also *Capestan* (our "capstan" comes from this)—pron. kah-beh-stahn, or *Capestan volant*—pron. voh-lahn; Ger. *Hebezug* (from *heben*, to heave or hoist)—pron. hay-beh-tsoog; also *Kranich*—pron. krah-nich.

Window, in Building. The aperture or "void" (which see) made in a wall in order to admit light to the space within. The term for the void is "window void" or "window opening." The "window" proper, in the constructive sense, is the framing—almost universally of wood, but in some cases, as in workshops and other buildings, of iron—which fills up the void and which carries the panes of glass, which, while they admit light, exclude rain, and when well made wind or draughts of air. *Der.* The term, according to some, is from the Old English *winddor*, window being but a corruption of this. The more accurate derivation seems to be from the Icelandic *vindunga*, which means "wind-eye"—the Old English term meaning "wind door." Window-frames or windows—to use the abbreviated term universally used—are all classed under two great divisions: those which are fixed and can neither be opened nor closed at will; and those which are capable of being wholly or partially opened in order to admit air to the apartment or to allow it to escape therefrom. Windows of the first class should never be used, for obvious reasons, especially in domestic houses; though they, nevertheless, from motives of economy, are but too frequently employed. Windows of

the second class are of several forms. The most simple is that in which the framework carrying the panes of glass is hinged to the style or jamb at one side, like a door, the framing opening either inwards or outwards—generally inwards; or the frame is cut, so to say, vertically to form two frames, each of which is hinged to the jambs, the two frames meeting in the centre. This is termed a "casement window proper," of which the best known form is the "French," generally known as a "casement window," as it is the one most chiefly employed. Another form of opening and closing window is one used in domestic structures of a humble character, and termed a "sliding," sometimes a "rolling window." In this the framing is generally much longer than broad, and when it is to be opened it is pushed back into a recess in the wall, which is made to receive it. In place of pushing back the whole frame carrying the glass, it may be divided vertically into two equal parts, these being pushed into wall recesses right and left. While the "casement window" is the form chiefly—almost universally—used in France and the Continent generally, that employed in this country is what is known as the "sash window." In this the framing carrying the glass panes is divided horizontally into two equal parts, termed "lights" or "sheets." In the simplest form the upper light or sheet is capable of being lowered and raised, the lower light remaining a fixed member; or the case may be reversed, the lower sash being capable of being raised or lowered, while the upper sheet is fixed. This form is known as a "single-hung sash window." In the best form of sash window both lights or sheets are capable of being raised or lowered, and this form takes the name of "a double-hung sash window." The raising and lowering of the respective sheets or lights—upper and lower frames—is simple in character, the frames being suspended by ropes—"sash cords"—passing over pulleys—"sash pulleys"—and their weight counterbalanced by cylindrical masses of cast iron, termed "sash weights." The sashes or sheets are kept in position by sliding in recessed parts made at each side of the window framing fixed on or secured to the wall at the sides of the void. The term "sash" is derived from, or a corruption rather of, the French word *châssis*, a window frame. Syn. Fr. for "window" simply, *Fenêtre*—pron. feuh-nay-terr; also *Croisée*—pron. krwah-zay; Ger. *Fenster*—pron. fenn-sterr. Syn. Fr. for "hinged window," *Fenêtre avec gonds*—pron. ah-vekk gohng, or *charnières*—pron. sharr-niairr, or *pentures*—pron. pahnn-tuehr; Ger. *Fenster mit Haspen*—pron. mit hass-penn, or *mit Charnier*—pron. sharr-nearr, or *Thürangel*—pron. tuehr-ahng-ell. Syn. Fr. for

"casement window," *Fenêtre croisée*, or simply *Croisée*; Ger. *Fensterflügel*—pron. fenn-sterr-flueh-gell. Syn. Fr. for "window sash," *Chassis de fenêtre*—pron. shahss-ee deh feuh-nay-terr, or *Chassis à verre*—pron. ah vairr; Ger. *Fensterrahmen*—pron. fenn-sterr-rahm-enn. Syn. Fr. for "sash window," *Chassis à coulisse*—pron. kool-ees (*coulisse*, groove, sliding board); also *Fenêtre à guilotine*—pron. ghee-loh-teen, or *à coulante*—pron. koooh-lahnt; Ger. *Schiebfenster*—pron. sheeb (from *schieben*, to slide), or *Fallfenster*; also, in view of the almost exclusive use of the sash window in this country, *englisches Fall-* or *Schiebfenster*—pron. aing-lish-ess fall- or sheeb-fenn-sterr, or *englisches Ziehfenster* (from *ziehen*, to pull, to draw)—pron. tzee. Syn. Fr. for "fixed window," *Fenêtre fixée*—pron. feehk-say; Ger. *festes Fenster*—pron. fess-tess. Syn. Fr. for "rolling or sliding window," *Fenêtre roulante* or *glissante*—pron. glee-sahnt; Ger. *Rollfenster*—pron. roll, or *Schiebfenster*. Syn. Fr. for "window frame," which carries the sashes or lights, and which is secured to the wall, *Chambrante*—pron. shahm-brahnl; Ger. *Fensterfutter*—pron. fenn-sterr-foot-terr. Syn. Fr. for "dead or blank window" (in which the void is filled up with stone or brick, and often painted outside to resemble a window—used to keep up the symmetrical external order or arrangement of the windows, but placed at parts where internal lights would not be required or convenient), *Fenêtre mort* or *aveugle*—pron. feuh-nay-terr mort, ah-veuh-gell; also *Fenêtre fausse* or *feinte*—pron. foass, faihgnt; Ger. *blinded Fenster*—pron. blin-dess fenn-sterr. Syn. Fr. for "attic window," *Fenêtre dans le comble*—pron. dahn leh cohm-bell, or *Fenêtre attique*—pron. ah-teek; also *Croisée attique*; Ger. *attisches Fenster*—pron. aht-tish-ess; also *Mansardfenster*. This attic window lies flat or in the plane of the sloping side of the roof. An attic window with vertical face is called a "dormer window": Syn. Fr. *Lucarne*—pron. lueh-kahrn; also *Fenêtre à abat jour*—pron. ah-bah jhoor; Ger. *Bodenloch* or *Bodenfenster*—pron. boh-denn-loch; also *Dachfenster mit vertikaler Aussenseite* (outside face)—pron. dach-fenn-sterr mit vairr-tee-kahl-err owss-enn-zite-eh. Syn. Fr. for "skylight window," *Fenêtre demoiselle* or *damoiselle* (young lady)—pron. demm- or dahm-vah-zell; Ger. *Dachfenster*, or *Jungfernfenster* ("young maiden window")—pron. joong-ferrn. Both of these terms, as their meaning indicates, are somewhat sarcastic, or may be called slang words—as if young ladies or maids were much in the habit of looking out at the roof or attic window. The more correct equivalents would be—Fr. *Fenêtre dans le comble ouverte au ciel*; Ger. *Fenster mit Oeffnung gegen den Himmel*, or *Himmelfenster*. Syn. Fr.

for "round or circular-headed window void," *Fenêtre cintrée avec tête cintrée à demi-cercle* — pron. feuh-nay-terr ah-veck tait saihn-tray ah deh-mee-seer-kell; Ger. *Fenster mit Halbkreisbogen* — pron. fenn-sterr mit halbkreis-boh-gen. Syn. Fr. for "pointed arch or Gothic window or void head," *Fenêtre gothique* — pron. goh-teek, or *Fenêtre ogivale* — pron. oh-jhee-vahl; Ger. *Fenster mit Spitzbogen* — pron. shpits-boh-genn, or *Spitzbogenfenster*. Syn. Fr. for "triangular-headed window void," in Domestic Gothic style (see Style), *Fenêtre avec arc mitré* (mitred—that is, with the lines meeting in the centre of the void at an angle of 45°) — pron. arrk mee-tray, or *Fenêtre avec arc pignoné* — pron. peeng-yon-aye; also *Fenêtre en mitre* — pron. ahn mee-terr, or *Fenêtre en pignon* — pron. peeng-yon; also *Fenêtre avec arc angulaire* — pron. ahn-gueh-lairr; Ger. *Giebelbogenfenster* (gable or gable-roof-shaped window or void head) — pron. gee- (g hard) bell-boh-genn; Syn. Fr. for "a scheme- or flat-arched window or void head," *Fenêtre bombée* — pron. bohmbay; Ger. *Fenster mit Stichbogen* — pron. stich-boh-gen, or *Stichbogenfenster*. Syn. Fr. for "square-headed window or void," *Fenêtre à linteau* — pron. laihn-toh, or *Fenêtre droite* — pron. drwaht; Ger. *wage-rechtes Fenster* — pron. vah-gay-recht-ess. Syn. Fr. for "window casing," *Jambe de fenêtre* — pron. jahmb deh feuh-nay-terr; also *Bordure à moulures* — pron. borrh-deuhr ah mool-yuhr, or *Moulures de lances d'un fenêtre* — pron. day lahnng-sayse duuhn; Ger. *Seitenkleidung eines Fensters* — pron. siteenn-klide-oohng ine-ess fenn-sterrs, or *Fensterseitenkleidung*. Syn. Fr. for "window-void head," *Linteau croisée d'une fenêtre* — pron. laihnng-toh krwah-zay duuhn; Ger. *Fensterhauptbalken* — pron. fenn-sterr-howpt-bahl-kenn, or *Fenstersturz* — pron. -stoortz, or *Fensteroberschwelle* — pron. oh-berr-shvell-eh. Syn. Fr. for "window ledge," *Soubassement de fenêtre* — pron. sooh-bass-mahn day, or *Accoudir de fenêtre* — pron. ah-kooch-deer; Ger. *Fensterbrüstung* — pron. -bruehst-oohng, or *Fensterstock*. Syn. Fr. for "window sill or cill," *Banquette d'une fenêtre*, or simply *Banquette* — pron. bahng-kett; or *Seuil d'une fenêtre* — pron. seuh-eel; Ger. *Sohlbank eines Fensters* — pron. sohl-bank ine-ess fenn-sterrs, or *Fenstersohlbank*; or *Fensterchwelle* — pron. shvell-eh. Syn. Fr. for "window glass," *Verre à vitres* — pron. vairr ah vee-terr, or *Verre* or *Vitre pour les fenêtres*; Ger. *Fensterglas*. Syn. Fr. for "pane of window glass" or "glass pane," *Panneau de verre pour les fenêtres*, or simply *Panneau* — pron. pah-noh; Ger. *Fensterglasscheibe* — pron. -glass-shi-beh. Syn. Fr. for "window (outside) shutter or jalousie," *Paravent* — pron. pahrah-vahn; also *Treillis* (pron. tray-yee), or *Grille* (pron. greehl), or *Cage* (pron. kahj), or *Lattis* (pron. lah-tee) *de fenêtre*;

also *Volet d'une fenêtre* — pron. voh-lay; also *Contrevent* — pron. kohn-terr-vahn; Ger. *Fenstergitter* — pron. git-terr, or *Fensterlatenwerk* — pron. lah-tenn-vaik. Ger. *Fensterladen* — pron. vinnt-lah-denn, or *Fenstervorsatz* — pron. fore-zatts. Syn. Fr. for "window shutter inside," *Ais* (board) or *Planche à fermeture d'une fenêtre* — pron. eh, or plahnsh deh fairr-meh-tuehr duehn; Ger. *inneres Fensterbrett* — pron. in-nerr-ess fenn-sterr-brett, or *inneres Fensterstürzbrett* (from *Stürze* [stooehr-tzay], a cover) — pron. stuerztz-bret. Syn. Fr. for "window-shutter iron bar," *Verge de fer d'une fenêtre* — pron. vairrj deh fairr duehn, or *Vitrière d'une fenêtre* — pron. vee-tree-airr; also *Barre de fer d'un ais* (planche) *d'une fenêtre*; Ger. *Fensterstange für das Fensterbrett*. Syn. Fr. for "window-sash fastener or bolt," *Targette de châssis à coulisse* — pron. tahr-gett deh shahs-ee ah kool-ess; Ger. *Schiebfensterriegel* — pron. sheeb-fenn-sterr-ree-gell. Syn. Fr. for "window-sash hook or thimble for lifting or raising the sash," *Monte-châssis à coulisse* — pron. mohn; Ger. *Schiebfensterheber* (from *heben*, to lift or raise) — pron. hay-berr. Syn. Fr. for "window-sash cord or line," *Corde à guillotine pour les fenêtres* — pron. korrh ah ghee-yoh-teen poohr lay; Ger. *Gewichtsschnur eines Schiebfensters* (Gewicht, a weight or sash-weight, and *Schnur*, a cord or line) — pron. geh-vicht-shnoor ine-ess. Syn. Fr. for "window-sash pulleys" for suspending sash-weights and cord running over, *Poulie à gorge* (grooved pulley) *pour le châssis à coulisse* — pron. pooh-lee ah gorj; Ger. *Kerbrölle des Schiebfensters* — pron. kairrb-roll-eh. Syn. Fr. for "window sash weight" for counterbalancing the weight of the sash, *Contrebalance pour le châssis à coulisse* — pron. kohn-terr-bah-lahnse, or *Poid* or *Pesant d'un châssis à coulisse*; Ger. *Gewicht des Schiebfensters*, or *Gegenwicht* (counterbalance) *des Schiebfensters* — pron. gay-genn-richt.

Wine Cellar, in *Domestic Architecture*. An apartment on the basement floor set apart for the storing up of wines. It is fitted up with compartments formed with flat stones, called "bins," or with the new forms of racks for the proper arrangement of the bottles. In smaller houses the beer cellar generally forms part of the wine cellar. Syn. Fr. *Cave pour le vin* — pron. kahv poor leh vaihn, or *Cave à vins*; Ger. *Weinkeller* — pron. vine-kell-err.

Wing, in *Domestic Architecture*. That part of a house which is added to the main or central part, and at right angles to it. Der. The word comes from *winge*, a wing, or from the Icelandic *vangs*, agitation of the air. Syn. Fr. for "wing of a house," *Aile d'une maison* — pron. ale duehn may-zohn, or *Pavillon d'une maison*, or simply *le Pavillon* — pron. pah-veal-yon; also *Maison* or *Bâti-*



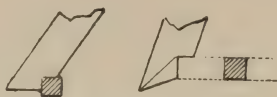


Fig. 1

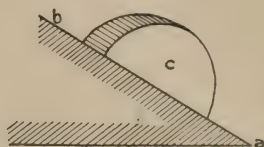


Fig. 2

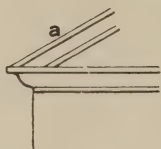


Fig. 3



Fig. 4

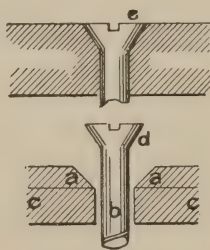


Fig. 5

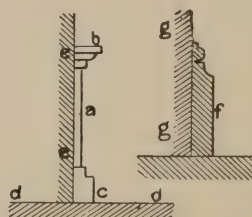


Fig. 6

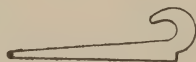


Fig. 7

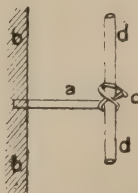


Fig. 8

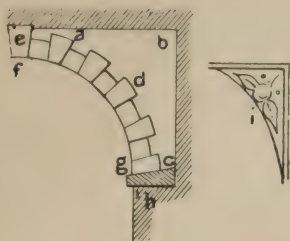


Fig. 1

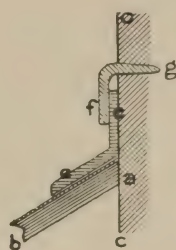


Fig. 5

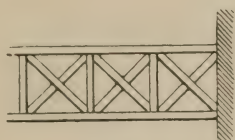


Fig. 2



Fig. 6

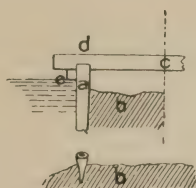


Fig. 3

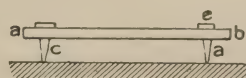


Fig. 7



Fig. 4

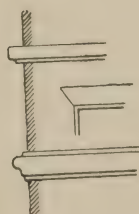


Fig. 8



ment détachée—pron. bah-tee-mahn day-tah-shay; Ger. *Flügel eines Hauses*—pron. flue-gell inc-ess how-zes; also *Seitenhaus* (side house)—pron. zite-en-house. Syn. Fr. for "wing wall" or "end wall," *Mur de culée*—pron. muer deh kueh-lay, or *Mur ailé*; Ger. *Flügelmauer*.

Wirework Lattice, in Construction. Lattice or trellis work executed in iron wire, plain or galvanised. Der. Our word wire comes from the Old English *wir*, iron formed as a long cylinder of such small diameter that, assuming the form of a fine cord or thread, it may be bent, twined, or twisted with ease. Syn. Fr. for "metal wire," *Fil de métal*—pron. feel deh may-tahl, or *Métal de roulage*—pron. roohl-ahj; Ger. *Metall-draht*—pron. mett-ahll-draht. Syn. Fr. for "iron wire," *Fil de fer*—pron. fairr; Ger. *Eisendraht*—pron. ize-enn-draht. Syn. Fr. for "galvanised iron wire," *Fil de fer galvanisé*—pron. gahl-vahn-eeze-eh; Ger. *galvanisirter Eisendraht*. Syn. Fr. for "wire cloth," used for larder windows, doors, etc., where air is required to be admitted and withdrawn, *Toile* or *Drap de fil de fer*—pron. twahl, drah; Ger. *Eisendrahtkleidung*—pron. klide-oong. Syn. Fr. for "wire gauze," *Tissue de fil de fer*—pron. tee-sueh; Ger. *Eisendrahtgaze*. Syn. Fr. for "wire lattice work," *Grillage* or *Lattis en fil de fer*—pron. greehl-ajh, lah-tee; Ger. *Eisendrahtgitterwerk*—pron. git-terr-vairrk, or *Eisendrahtwerk*.

Withs, in Bricklaying and Masonry. The divisions in a chimney in which there are more flues than two are so called. They form, in fact, partition walls on a small scale, keeping the flues distinctly separated from one another.

Wood, in Materials. The term is chiefly employed to indicate the parts which are cut up into definite breadths and thicknesses, to distinguish them from the (wood) material in its form of trees, balks or beams in the rough. A balk or beam is thus generally spoken of as timber, planks or boards as wood. They are, however, very frequently considered as convertible and strictly synonymous terms, and it is difficult in practice to say when the general material should be called wood, when timber. Der. Our word is from the Old English *wuda*, a collection of growing trees, or the material obtained from cutting them up. Syn. Fr. for "wood" generally, *Bois*—pron. bwah; Ger. *Holz*—pron. hollts. Syn. Fr. for "wood cut with the grain," *Bois coupé avec le fil*—pron. koop-eh ah-vekk leh feel, or simply *Bois de fil*; Ger. *Holz nach dem Faden schneiden*—pron. nakk dame fah-denn shnide-enn, or *Langholz*—pron. lang-hollts. Syn. Fr. for "wood cut against the grain," cross-cut wood, *Bois taillé contre le fil*—pron. bwah tahl-yea kohn-terr leh

feel, or *Bois au rebours* (*rebours*, wrong side or way)—pron. oh reuh-boohr; also *Bois à travers le fil*—pron. trah-vairr, or *Bois dont la venue est à rebours*; Ger. *Querschnittholz*—pron. quare-shnitt-hollts. Syn. Fr. for "soft wood" or "white wood," as pine, *Bois blanc* or *doux*—pron. blanhg, dooh or doohz, or *Bois tendre*—pron. tahn-derr; Ger. *Weissholz*—pron. vice-eh-hollts, or *Weicheholz*—pron. vye-shay. Syn. Fr. for "wood-yard," *Chantier de bois*—pron. shahng-te-yea; Ger. *Holzplatz*—pron. plahtz. Syn. Fr. for "woodwork" for a house, *Boiserie d'un bâtiment*—pron. bwahze-ajh duehn bah-tee-mahng; Ger. *Holzwerk des Hauses*—pron. hollts-vairk dess how-ses. Syn. Fr. for "worm-eaten wood," *Bois vermoulu*—pron. bwah vairr-mooch-leuh, or *Bois moulinée*—pron. mooch-leen-eh; Ger. *Wurmstichiges Holz*—pron. voorm-stick-ich-ess hollts. Syn. Fr. for "hard wood," *Bois dur*—pron. duehr, or *Bois rustique*—pron. ruess-teek; Ger. *Hartholz*. Syn. Fr. for "knotty wood," *Bois nouveau*—pron. nooh-euh, or *Bois gauche*—pron. gohsh; Ger. *knotiges Holz*—pron. knoh-tig-ess. Syn. Fr. for "waste or refuse wood," *Bois de rebut*—pron. reuh-booh; Ger. *Abfallholz*. Syn. Fr. for "decayed or rotten wood," *Bois fangeux*—pron. fahn-jheu, or *Bois spongieux*—pron. spohn-jheu. Syn. Fr. for "sap wood," *Bois aubier*—pron. oh-byea; Ger. *Anreifeholz*—pron. ann-rife-enn-hollts, or *Splintholz*—pron. spleent. Syn. Fr. for "seasoned wood," *Bois desseché*—pron. day-sesh-eh, or *Bois séché dans l'air* (natural drying or seasoning in the open air)—pron. bwah sesh-eh dahn lair; Ger. *ausgetrocknetes Holz*—pron. owss-geh-trokk-net-ess, or *Luft* (air) *trocknes Holz*—pron. leuft-trokk-ness. Syn. Fr. for "veneering wood" or "wood for veneers," *Bois pour feuille de placage* (see Veneer); Ger. *Furnierblattholz* (see Veneer). Syn. Fr. for "wood shavings," *Bois en copeaux*—pron. bwah ahn koh-poh; Ger. *Hobelspäne*—literally "joiner's plane chips"—pron. hoh-bell-spay-neh. Syn. Fr. for "wood varnish," *Vernis pour bois*—pron. vair-nee poor; Ger. *Holzfirnis*—pron. feerr-niss.

Wood Bricks, in Building. Pieces of wood of the size of bricks inserted and built into walls at places where woodwork has to be secured, such as those of doors, windows, etc.

Work, To, in Construction. A phrase used to indicate the commencement and completion of the labour required to make and construct or put together the various parts of a building. Der. Our word comes from the Old English *wyrkan*, or the German *wirken*, which is closely allied to the former word. Syn. Fr. for "to work," *Travailler*—pron. trah-vahl-yea; also *Mettre en œuvre*—pron. mett-err ahn euh-verr; also *Ouvrer*—pron. ooh-vray; Ger. *Arbeiten*—pron.

ahr-bite-enn. Syn. Fr. for "work," *Ouvrage* —pron. ooh-vrajh; also *Travail* —pron. trah-vah-yeh; also *Œuvre*; Ger. *Arbeit* —pron. ahr-bite; also *Werk* —pron. vairk. Syn. Fr. for "workman," *Ouvrier* —pron. ooh-vree-yea; also *Artisan* —pron. ahr-tee-zahn; Ger. *Arbeiter* —pron. ahr-bite-err; also *Handwerker* —pron. hant - vairk - err. Syn. Fr. for "workshop," *Atelier* —pron. ah-tell-yea; also *Ouvroir* —pron. ooh-vrwahr; Ger. *Werkstube* —pron. vairk-stooh-beh, or *Werkstelle* —pron. vairk-stell-eh. Syn. Fr. for "work well or systematically done," *Travailler règlement* —pron. trah-vahl-yea ray-gle-mahn, or *Travailler selon les règles* —pron. seh-lohng lay ray-gel; Ger. *Handwerk-männisch arbeiten*. Syn. Fr. for "work ill done," *Ouvrage mauvais* —pron. ooh-vrajh moh-vay, or *Ouvrage à paresseux* —pron. parr-ess-yeuh; Ger. *Werk sehr schlecht* gethan —pron. vairk sair schlecht gay-tahn. Syn. Fr. for "work done or run up quickly," *Travail à dépêche* —pron. trah-vah-yeh ah day-paysh; Ger. *Arbeit hastig* gethan. Syn. Fr. for "worked" or "wrought," *Travaillé* or *Ouvré* —pron. trah-vahl-yea, ooh-vray; also *Effecté* —pron. a- (as in *fate*) fec-tay; also *Mise en œuvre* —pron. mee-zahng; Ger. *gearbeitet*,

vollendet, or *gethan*. Syn. Fr. for "working plant" or "stock of materials, tools and appliances," *Matériel d'ouvrage*, or *Matériel pour un atelier*; Ger. *Betriebsmaterialien* —pron. bay-treebs - mah - tehr - ee-ahl - ee-enn. Syn. Fr. for "workmanlike," *Ouvrage bien exécuté*, or *fait* —pron. ooh-vrajh bee-ahn ex-eh-kueh-tay, fay; Ger. *Meisterhaft* gethan. Syn. Fr. for "workmanship," *Fabrication* —pron. fah-bree-kah-see-ohn; Ger. *Arbeit*.

Wreathed Columns, in *Architecture*. Pillars or columns twisted like a corkscrew. *Der*. Our word wreathe comes from the Old English *wredhan*, to entwine or twist. Syn. Fr. *Colonne cordonné* (twisted column) —pron. koh-lonn kohr-doh-nay; Ger. *Gewundene Säule* —pron. geh - voon - den - neh zoy-lenn.

Wrench, in *Tools*. A synonym for a spanner or key for turning the nuts of screw-bolts. *Der*. Our word wrench comes from the Old English *wrenchan*, to wring off, to twist by force. Syn. Fr. for "wrench" or "hand wrench," *Tourne-vis* —pron. toorn-vee; also *Manche de taraud* —pron. mahnsh deh tarr-oh; Ger. *Schraubenschlüssel* —pron. shrow-benn-shlues-sell; also *Schraubenhebel* —pron. shrow-benn-hay-bell.

Y Z

Yard Timber. Syn. Fr. *Chantier à bois*, or simply *Chantier* —pron. shahn-tyea; Ger. *Zimmerplatz* —pron. tsim-merr-platts; also *Holzplatz* —pron. hollts. Syn. Fr. for "yard," "court," *Cour* —pron. koohr; Ger. *Hof* —pron. hohf.

Zinc, in *Materials*. A metal much used in building in the form of sheets or plates, and also for coating plate-iron by the

process known as galvanising. Syn. Fr. *Zinc* —pron. zahnk; Ger. *Zink* —pron. tsink; also *Spialte* —pron. spee-all-teh. Syn. Fr. for "zinc covering," as of plates used cover roof-trusses in place of slates or tiles, *Couverture en zinc* —pron. koooh-vair-tuehr ahn zahnk; Ger. *Zinkbedachung* —pron. tsink-beh-dach-oong.

ADDENDA.

NOTE.—In commencing the text of this volume it was intended that the “terms” of the art of Machine Construction should be included, as well as those of General Science. But it was found that the first even of those sections included terms so numerous that the bulk of the volume would be increased much beyond that deemed desirable. Leaving the terms of the two sections named for another volume, space has been afforded by which the matter of the present Dictionary can be increased, making the list of terms now very exhaustive.

Abutting Piece, in Carpentry. The piece of timber, as a brace, which butts at the ends against another piece. Syn. Fr. *Embranchement*—pron. ahm-brahnsh-mahn; Ger. *der Sticbalken*—pron. stich-ball-kenn; also *die Verbrüstung*—pron. ferr-bruehs-toohtng. “Abutting road,” a road which butts on or joins another road. Syn. Fr. the same as above; Ger. *Verzweigung*—pron. ferr-tzvy-goong. Syn. Fr. for the general term “abutting,” *Saillant*—pron. sahl-yahn; Ger. *Hervorragend*—pron. herr-for-rah-gend (g hard, as in get).

Adjust. Under this we give the following cognate terms:—“To adjust timber,” Syn. Fr. *Mettre des pièces en règle*—pron. mett-terr day pee-ace ahn ray-gell; Ger. *Zimmerholzstücke an Ort bringen*—pron. tsimmer-hollts-stueh-kehahn ortt bring-en. “To adjust holes”—that is, to make them coincide or be in line with each other, so that a bolt, for example, could be passed through the hole made in each, and thus keep or secure them together, or by screw-nuts and bearing-plates—Syn. Fr. *Ajuster* or *Rapporter les trous*—pron. ah-jues-tay, rah-porr-tay lay troo; Ger. *die Höhlen berechtigen*—pron. dee heh-len beh-recht-ich-enn. “To adjust by a line or cord,” stretched tightly between two points, as laying out a line of wall or of timber-work, Syn. Fr. *Ajuster* or *Dresser au cordeau* or *par la corde*—pron. dress-eh oh korr-doh; Ger. *mit der Saite berechtigen*—pron. mit dare zaih-teh beh-recht-ich-enn. Syn. Fr. for “adjustable,” *Ajustable*—pron. ah-juess-tah-bell; Ger. *Regulierfähig*—pron. ray-goo-leerr-fay-ich.

Adze. The following are additional terms in French and German:—Syn. Fr. *Assette*—pron. ah-sett, or *Asseau*—pron. ah-so; also *Erminette*—pron. err-mee-nett, or *Doloire*—pron. doh-lwahr; also, further, from the fancied resemblance in shape to a shoulder of a sheep, *Epaule de mouton*—pron. eh-poll day mooch-tohn (or tong slightly accentuated); Ger. *Brettbeil*—i.e. a broad hatchet (*Beil*)—pron. bright-bile; also

Zimmerbeil—i.e. a chamber or room hatchet—pron. tzeem-err-bile, or *Breithacke*—i.e. a broad hatchet or hoe (*Hacke*)—pron. hack-eh; further *Hohlbeil*—i.e. a hatchet for making holes or depressions, or *Lenkbeil* (from *lenken*, to turn or bend, alluding to the shape of the tool). Syn. Fr. for a “flat adze,” *Herminette droite*—pron. herr-mee-nett drwaht; Ger. *Flachbeil* (*flach*, plain)—pron. flack-bile. Syn. Fr. for “adzing,” *Sabotage*—pron. sah-boh-tawje.

Agreement—in connection with work done. (See term in body of Dictionary for derivation.) Syn. Fr. for “agreement to do work by the job,” or as the work stands, generally adopted in small undertakings, *Marché à la tache*—i.e. a bargain by the task—pron. marr-shay ah lah tahsh; Ger. *Contract bei dem Stück*—i.e. a contract after or according to the price—pron. konn-trahkt by dame stuek. Syn. Fr. for “agreement by measurement,” as by square or superficial or by cubic or solid measurement in yards or feet, *Marché au mètre* (the mètre being the standard measurement in France)—pron. marr-shay oh may-terr; Ger. *Contract mit festem Preis für jede Messung*—i.e. an agreement with a fixed or fast price for each measurement—pron. mit fess-tem price fuehr yay-deh mess-oong.

Air, Atmospheric, in Sanitary Architecture and Building. Used in connection with ventilation and drainage. *Der.* The term—which indicates that the fluid or gas which surrounds the atmosphere is present in and about everybody, save in spaces or *in vacuo*—comes almost without change from the Latin *aer*, and this from the Greek, meaning the atmosphere (and this latter word from the two Greek words *atmos*, a vapour, and *sphaira*, a globe or sphere): hence the term aeriform, air-like. Syn. Fr. *Air*, or more specifically *Air de l'atmosphère*—pron. air day latt-moh-sphair or sfare, or *Air atmosphérique*—pron. att-moh-sphair-eek; Ger. *Luft*, or more speci-

fically *atmosphärische Luft*—pron. att-moh-sphere-eech-eh looft or luuhft. Syn. Fr. for "fresh or open air," *Air libre* (free air)—pron. air lee-berr, or *En plein air*—pron. ahn or ahng pleng air; also *Air oxygène*—that is, air supplied with oxygen, the gaseous substance of air which chiefly supports life—pron. air ox-ee-jhane, or *Air vital*—pron. veeh-tahl; Ger. in *freier Luft*—pron. een frih-air loohft. Syn. Fr. for "foul air," *Air fixe* or *vicié* or *infect*—pron. air feexe, vee-see-eh, awhn- or ahng-fekt; Ger. *die fixe Luft*—pron. deeh feex-eh loohft, or *faule Luft*—pron. fowl-eh. Syn. Fr. for "air box or chamber" in ventilation, *Chambre* or *Reservoir d'air*—pron. shawm-berr, rayhs-err-vwah dair; also *Boîte à air*—pron. bwaht ah air; Ger. *Luftkasten*—i.e. air chest—pron. kass-tenn, or *Luftbüchse* (air box)—pron. booh-eex-eh, or *Luftbehälter*—i.e. air reservoir. Syn. Fr. for "air brick"—that is, a brick perforated with holes or hollow spaces to admit air below the flooring of chambers, *Brique creusée pour l'air*—pron. breek kroose-eh poor lair; Ger. *Luftziegel*. Syn. Fr. for "air-tight," *Imperméable à l'air*—pron. ahm-perr-may-ah-bell ah lair; also *Hermétiquement*—pron. herr-may-teek-mahng; also *Étanche* (from *étancher*, to stop)—pron. ett-ahwngsh; Ger. *Luftthermetisch*—pron. loohft-herr-may-teesh, or *Luftdicht* (*dicht*, tight, close)—pron. deecht (see pronunciation of "ich" in Dissertation); also *Winddicht*—pron. veent-deecht. Syn. Fr. for "air trap or ventilator," *Ventilateur*—pron. vahn- or vahng-tee-lah-toooh; Ger. *Luft- or Windthür*—pron. veent-too-err. Syn. Fr. for "air shaft" (or ventilating tube), *Voie d'aérage*—pron. vwah dair-awjh; also *Tuyau d'air*—pron. twee-oh dair; Ger. *Luftrohre*—pron. loohft-roh-ray. Syn. Fr. for "air hole," *Ventouse*—pron. vahn- or vahng-tuunze, or *Event* or *Éventuse*; Ger. *Luft- or Windhohle*—pron. loohft- or veent-ho-lay, or *Luftkanal*. Syn. Fr. for "air (used) discharge pipe, tube, or ventilator," *Tuyau de décharge d'air*—pron. twee-oh day day-charjh dair, or *Ventilateur*—pron. vahng-tee-lah-tuuh; Ger. *Luftzieher* (from *ziehen*, to draw, to pull)—pron. luuhf-tzeeh-err. Syn. Fr. for "air stove," *Calorifère*—pron. kah-loh-ree-fair; Ger. *Luftwärmofen*—pron. vah-eerm-oh-fenn; also *Luftofen*. Syn. Fr. for "air ventilation," *Aérage*; Ger. *Luften*.

Alabaster, in *Ornamental and Sculptured Work*. A valuable stone used in ornamental, carved, and other work—a calcareous, a carbonate of lime, pure white in colour generally, but also veined, spotted, and grey. Syn. Fr. *Albâtre*—pron. ahl-bah-terr; Ger. *Alabaster*. Syn. Fr. for "antique alabaster," *Albâtre antique*—pron. ahn-teek; Ger. *antiker Alabaster*—pron. ahn-teek-err. Syn. Fr. for "grey alabaster," *Albâtre gris*—pron. gree; Ger. *grauer Alabas-*

ter—pron. grough- (as in plough) err. Syn. Fr. for "spotted alabaster," *Albâtre tacheté*—pron. tash-tay (from *tacheter* [tash-tay], to speckle); Ger. *Fleckalabaster* (from *flecken*, to spot, to stain). Syn. Fr. for "veined alabaster," *Albâtre veiné*—pron. vay-nay; also *Onyx*—pron. oh-neex; also *Onéchyte*—pron. oh-nay-keete; Ger. *Ader-alabaster* (Ader, a vein, a streak). Syn. Fr. for "white alabaster," *Albâtre blanc*—pron. blahn; also *Emite*—pron. eh-meet; Ger. *weisser Alabaster* (weiss, white)—pron. vice-err.

Alignement. A term sometimes used in laying or setting out work or building land to indicate the line of direction which certain objects take, or as a term indicating the act of setting out or laying down lines of objects. It is an adaptation of the French word *ligne*, a line—or rather it is the same word as the French, based on the word *ligne*. Syn. Fr. *Alignement*—pron. ah-leen-mahn or -mahng; Ger. *Linienrichte* (from *Linie*, a line, and *richte*, right, or correctly put down)—pron. leen-ee-enn-reeght-eh, or *Schnurrichte* (from *Schnur*, a cord, from the fact that a cord or string is generally used for the purpose of alignment)—pron. shnuuhr-reeght-eh.

Altar, in *Church Architecture*. That part of the building before which the communicants at the Holy Sacrament kneel, or before which those getting married stand. *Der*. The word is from the Latin *altare*, with but little alteration, and this from *altus*, high—the highest place in a temple of worship. Syn. Fr. *Autel*—pron. oh-tell, or more definitely *Autel d'une église* (altar of a church)—pron. duehn eh-gleeze; Ger. *der Altar*.

Alteration. A term frequently employed in building, where a new part is to be substituted for an old one, or where the form or size of a room is to be changed, etc. *Der*. From the French *altérer* (pron. all-tairr-eh), and this from the Latin *alterare*, to change, to alter—the root of which is *alter*, another—to take away one and replace it by another. Syn. Fr. *Altération* (same word as the one we use)—pron. ahl-terr-ah-seeon; also *Dépérissement*—pron. day-pair-eece-mahn; Ger. *Veränderung*—pron. ferr-enn-derr-oong, or *Neuerung*—pron. noy-err-oong; also *Abstehen*—pron. ahp-stay-enn.

Alternating. A term used to indicate that parts of a building or construction are placed by turns—one following the other in a predetermined arrangement, as windows or doors in a range or row of buildings. *Der*. From the Latin *alternatus*, the past participle of the verb *alternare*, to proceed, go on, or act by turns. Syn. Fr. *Alternatif*—pron. ahl-tare-nah-teef; Ger. *Wechselweise* (*Wechsel*, change, exchange)—pron. veck-sell-vy-zeh.

Angle, in *Construction*, and in laying

down or setting out of work. The point where two lines coming from or drawn or laid down in two different directions meet, the space within being at an angle greater or less according as the lines approach to or recede from one another. *Der.* Directly from the Latin *angulus*, and this from the Greek *ankulos*, bent, and this again from *ankos*, a bend or hollow, as the hollow below the arm-joint where the hand and wrist are bent inwards towards the body. Syn. Fr. *Angle* (same word as ours)—pron. ahn-gell; Ger. *der Winkel*, a corner, a nook —pron. vin-kell. For "acute angle" (an angle less than a right angle—which is formed by one line drawn vertically or perpendicularly to another line: if one of the lines lean towards the other the angle formed is an acute angle), Syn. Fr. *Angle acut*—pron. ahn-gell ah-kuht; Ger. *Scharfkantig* (*scharf*, sharp or acute, and *kantig*, cornered)—literally "sharp-cornered"—pron. sharrf-can-tich. An "obtuse angle" is an angle greater than a right angle (in which, if we suppose the angle point is at the left hand, the line falls or inclines towards the left, giving what may be called an open angle or inclosed space; in an acute angle the line would fall towards the other line, giving a close angle or space. *Der.* This term is from the Latin *obtusus*, blunt, not sharp, and this from the Latin verb *obtundere*, *obtusum*, to make blunt, blunt. Syn. Fr. *Angle obtus*—pron. ohbb-tueh, or tuuhze; Ger. *Stumpfwinkel* (*stumpf*, blunt, dull, obtuse, *Winkel*, an angle)—pron. stoohmf-vin-kell, or *Stumpfecke* (*Ecke*, a corner)—pron. ekk-eh. Syn. Fr. for "right angled" (90 degrees), *Rectangulaire*—pron. raykt-ahn-guuh-lairr; Ger. *Rechtwinkelig*—pron. raykt-vin-kell-ich. "Oblique (pron. oh-bleek) angle." *Der.* From the Latin *obliquus*, and this from *ob* and *liquis*, meaning aslant, awry, not erect or vertical. Syn. Fr. *Angle oblique*—pron. oh-bleek; Ger. *schiefer Winkel* (*schief*, asloped, aslant, awry)—pron. sheef-err vin-kell. The term oblique angle is applied to cases where the base of the angle is itself at an angle to the horizon—that is, not horizontal. Generally the base of angles, either acute or obtuse, is laid down as a horizontal line. For "rectilineal angle"—i.e. an angle either obtuse or acute, in which the forming or inclosing lines are straight or right lines—Syn. Fr. *Angle rectiligne*—pron. raykt-ee-len; Ger. *Geradliniger Winkel* (*gerade*, straight, right—pron. geh-rah-deh). Syn. Fr. for "angle head," in framing, *Ecoinson*—pron. eh-kwahn-sohn; Ger. *Verkrugung*. For "angle bevil," in construction—a "square," often so called, consisting of a stock and a blade jointed with a set-screw joint, so that the blade may be set at any desired angle to the stock, by which angular lines may be set out on

surfaces—Syn. Fr. *Sauterelle*—pron. soh-terr-ell; also *Equerre pliant*—i.e. a square, so to say, pliant or easily set in one direction or another)—pron. eh-kwaïrr plee-ahn, or *Fausse équerre*—i.e. a false, not a "true" square—pron. fohss, or *Equerre mobile*—i.e. a movable square, one part of the blade being movable—pron. moh-beel; Ger. *Winkelfasser* (*fassen*, to "set out" or "lay down"); also *Schrägmass* (*schräg*, sloping)—i.e. a sloping line measure. Syn. Fr. for "angle fillet," *Taque-rie*—pron. tahk-reeh; Ger. *Winkelleiste*—pron. vin-kell-lice-teh. Syn. Fr. for "angle piece" (at the junction of two walls), *Retour d'angle*—pron. ray-toor dahnghe; Ger. *Winkelhaken* (*Hake* [hah-kay], a hook), shaped like a hook. Syn. Fr. for "angle piece of iron," *Fer à cornière*, or *Fer d'angle cornière*—pron. korn-ee-airr. Syn. Fr. for "angle piece" for the tie of a hip-roof, *Coyer*—pron. koh-yay; Ger. *Walm-spannen* (*Walm*, a slope—pron. vahlm). Syn. Fr. for "angular" or "angulous," having or full of corners, *Angulaire*—pron. ahn-guuh-lairr, or *à angles*, or *Anguleux*—pron. ahn-guel-euh; Ger. *Eckig*—pron. ekk-ich, or *Winkelig*; also *Vielwinkelig* (*viel*, many, much)—pron. feel-vin-kell-ich.

Anvil, in *Ironmongery*. The iron block with flat steel face upon which iron and other malleable metal articles are beaten, forged, and formed into the desired shape. It is provided at one end with a projecting angular part, rounded, terminating in a point, on which articles requiring to be bent or curved are formed. This part is called the "horn" of the anvil, from its fancied resemblance to the horn of an ox, etc. Near to the flat or square end of the anvil, opposite to the horn end, a square hole is cut of size sufficient to take in the tails of the different patterns of "swages" or moulds by which various forms are forged or wrought. *Der.* From the Old English *anfilt*, a resisting block upon which an article can be hammered, forged, or struck. Syn. Fr. *Enclume*—pron. ahn-kluuhm; Ger. *Hammerstock* (*Stock*, a block, a stump—a stump of a tree or a stone was the first form of the anvil); also *Schmiedestock* (smith's block)—pron. shmee-deh-stokk. Syn. Fr. for "anvil surface or face," *Aire d'une enclume*; Ger. *Hammerstock-fläche* (*fläche*, plane, level area)—pron. flech-eh.

Aperture (see term in text) of an angle. This term is used to indicate the extent of space between the two lines forming an angle: the closer together, the more acute the angle, the less the opening or aperture. Syn. Fr. *Espace entre les côtés d'un angle*—pron. ess-pass ahng-terr lay koh-tay duuhn ahn-gell; Ger. *der Raum* (space, room) *zwischen den Seiten* (sides) or *Linie* (line) or *Schenkeln* (*Schenkel*, a thigh, a leg) *einen Winkel*—pron. derr rowm tzveesh-enn

demm site-enn, leen-yenn, shenn-kelln ih-nen veehn-kell. Syn. Fr. for the "aperture or orifice of a pipe," as of a drain tube, *Orifice d'un tuyau*—pron. oh-ree-feece duuhn twee-oh; Ger. *Rohröffnung*—pron. roy-ray-oh-eef-noohng.

Apparatus, in Tools and Construction. A term often used as synonymous with a "machine," or some arrangement of mechanical parts constructed to do a certain work. The term is, however, perhaps more strictly accurate when applied to some mechanical arrangement on a small scale, to do light work—the term machine being applied to mechanism on the large scale, to do heavy work. Thus the "balance" arrangement for the minute work of the chemical laboratory is called with perfect propriety a weighing "apparatus," while the mechanical arrangement necessary to weigh heavy bodies, as hundredweights and tons of materials, is termed a weighing "machine." Generally the term apparatus is applied to the mechanical arrangements necessary in scientific investigations and experiments; the term machine to those designed for the doing of mechanical work. *Der.* The word is from two Latin words—*ad*, and *parare*, to prepare, to make ready certain objects to accomplish certain ends. Syn. Fr. *Appareil*—pron. ah-parr-aye-yuh or -yill; also *Mécanisme*—pron. may-kann-eesm; or *Mécanique*—pron. may-kann-eek; Ger. *Apparat*—pron. ah-parr-att.

Apprentice, in Building Construction. The term applied to a youth who is learning the details of the different branches of work, and how to execute them in practice. For this purpose he is "bound" to serve his master for a given term of years—generally either five or seven—during which he is supposed to give his labour in return for the instruction he is supposed to receive directly from his master, and whose experience he is to profit by. Generally, nowadays, the value of the work actually done by the apprentice, especially during the latter part of his apprenticeship, is supposed to be greater than the value of the instruction received or experience obtained; so that wages are earned by him or money extra to these is given. A strong current of practical opinion is setting in against the system of binding apprenticeships,—some holding that the youth taken should be paid for what work he can do: the cleverer he is the more he will make, the more rapidly he learns the "secrets of the craft," the more quickly will he reap its benefits and attain to the position of a skilled workman, earning or capable to earn high wages. *Der.* From the French *apprenti*, and this from the Latin *apprendere*, to comprehend, to learn. Syn. Fr. *Apprenti*—pron. ah-prahn-tee; Ger. *Lehrjunge*—literally

"learn or learning youngster"—pron. lair-yung-geh; also *Lehrbursche* (*Bursche*, companion, lad), or *Lehrling*. Syn. Fr. for "apprenticeship," *Apprentissage*—pron. ah-prahn-tee-sahj; Ger. *Lehrzeit* (*Zeit*, time or period)—pron. tsite. Syn. Fr. for "to serve one's apprenticeship," *Faire l'apprentissage*—pron. fare lapp-rahn-tee-sahj; Ger. *in der Lehre sein*—pron. in derr lair-reh zine. Syn. Fr. for "to be out of one's apprenticeship," *Sortir de l'apprentissage*—pron. sohr-teer; Ger. *aus* (owss) *der Lehrzeit sein*.

Apsis, in Architecture. This and the word apse (which see in text) is taken almost directly from the Greek *hapsis*, a hoop, an arch. Syn. Fr. for "apsis" (a round hemispherical vault or arch, or a rounded niche), *Abside*—pron. ahb-seed; also *Demi-voûte en semicirculaire*—pron. deh-mee-vooh-t ahn say-mee-sairr-kell; Ger. *Schwibbogen*—pron. shveeb-boh-genn; also *die Nische* (a niche)—pron. nish-eh.

Apteral, in Architecture. A term used to indicate that the aisles or wings of a building, as a church, are without pillars, or that the church is without aisles or wings. *Der.* From the Greek *aptera*, meaning without wings. Syn. Fr. *Aptérale*—pron. appat-rahl; Ger. *ohne Säulen* (pillars) *an den Flügeln* (wings or aisles)—pron. oh-neh zoy-lenn ann dane flueh-gelln.

Arcades, Intersecting, in Architecture. (See Arcade in text.) A modification of the ordinary or usual form of small arches, in which the pillars or columns are spaced or separated from one another by distances equal to one-half only of the true diameter of the arch, forming the basis of the arch, the curves or segments of circles of which are thus described from the centre-line of each pillar or column as a centre, in place of the arch, as in the usual arcade, being described from a point midway between the pillars. Where the arch or basis of the arcade is semicircular, the intersecting curves form a series of pointed or lancet-shaped arches. This is said to have been the origin of the Gothic or pointed arch, met with first in the Norman style of architecture, the arches of which were semicircular; so that when the spaces between the columns were halved, a new series of centres were given which produced the intersecting arches. Syn. Fr. *Arcature intersectée*—pron. ahr-kah-tuuh ahn-terr-sekk-tay; also *Arcade entrecroisée* (crossed)—pron. ahr-kahd ahng-terr-krwah-say; Ger. *Rundbogen* (round arch) *durchkreuzende* (through-crossing)—pron. roond-boh-genn doorsh-krooh-tzenn-day. "A dead or false arcade," in which there are no real openings between the arches—otherwise termed an attached arcade, as it is built on to a wall (see Arcade in text)—Syn. Fr. *Arcade or Arcature fausse or aveugle* (blind) or *simulée*—pron. fohsh, ah-vuuh-gell, seem-

ooh-lay; Ger. *Blindearkad*—pron. bleen-day.

Arch (see term in text). "Discharging or Relieving arch," the arch thrown over a void, as a window opening, to discharge the pressure of, or relieve the buttments or sides of opening, or the lintel or beam thrown across it, of the superincumbent pressure. Syn. Fr. *Arc au-dessus d'un linteau*—pron. arkk oh dess-oo duuhn lain-toh; also *Arc de décharge*—pron. deh day-shahrj, or simply *Décharge*; Ger. *Ablastungsbogen* (*Last*, a burden or charge, from *lasten*, to weigh, to press upon)—pron. abb-lass-toongs-boh-genn. For "rampant arch"—that is, an arch the opening or buttments of which are not a level, but one springing stone or impost is higher than the other, thus giving a rising or an inclined arch—Syn. Fr. *Arc rampant*—pron. rahm-pahn, or *Arc en pente*—pron. ahn pahnt; Ger. *ein steigender Bogen* (*steigen*, to mount, to ascend)—pron. ine sty-gen-derr boh-genn. Syn. Fr. for "flat arch," *Arc en cintre surbaissé*—pron. suuhr-bay-say; Ger. *flacher or platter Bogen*—pron. flach-err. Syn. Fr. for "elliptical arch" (the synonyms above apply to this term), *Arc en ellipse*, or *Arc elliptique*—pron. eh-leep-teek; Ger. *elliptischer Bogen*—pron. el-lip-tish-err. Syn. Fr. for "pointed or Gothic arch," *Arc aigu* (from *aiguiser* [eh-gweeh-zay], to point, to sharpen)—pron. eh-guuh, or *Arc en ogive*—pron. oh-jeeve; also *Arc pointu*—pron. pwahn-tuuh, or *Arc gothique*—pron. go-teek; also *Arc de cloître* (*cloister arch*)—pron. klwah-tuuh; Ger. *Spitzbogen* (from *Spitz*, a point)—pron. shpits-boh-genn, or *Klosterbogen* (*cloister arch*)—pron. klohss-terr; also *gothischer Bogen*—pron. go-tish-err. Syn. Fr. for "lancet (shaped) arch," *Arc en lancette*—pron. lahn-sett, or *Arc en ogive surhaussée* (*surhausser*, to raise higher)—pron. suuhr-hoh-say; Ger. *Lanzettbogen*—pron. lahn-tsett, or *hoher Spitzbogen*. Syn. Fr. for "four-centred or Tudor arch," *Arc à quatre cintres*—pron. ah kah-terr sahn-terr, or *Arc Tudor*—pron. tuuh-dore; Ger. *Bogen mit vier Mittelpunkten*—pron. boh-genn mit feer mit-tell-poohnk-tenn; also *Tudorischer Bogen*. Syn. Fr. for "ground arch," *Arc d'arête*—pron. ah-rate; Ger. *Gratbogen*. Syn. Fr. for "decorated arch," *Arc ornée*—pron. ohr-nay; Ger. *besetzter Bogen*—pron. beh-zets-ter. For a "clustered arch"—that is, an arch with an intrados or inner surface made up of a number of mouldings clustered together, in place of having the inner surface flat, as in ordinary arches—Syn. Fr. *Arc en faisceau* (*faisceau*, a bundle, a bunch)—pron. arkk ahn face-oh; Ger. *Bündelbogen* (*Bündel*, a bundle: our word comes from this)—pron. buehn-dell-boh-genn. Syn. Fr. for "Moorish or Arabic or horseshoe arch," *Arc moresque*—pron. mohr-aisk, or *arabique*—pron. ah-rah-beek; also *Arc en fer à*

cheval—pron. fair ah sheh-vahl, or *Arc outre passé*—pron. ooh-terr pah-say, meaning an arch of which the centres of the curve are passed or placed beyond or above the usual line of centres, which is on a level with top of imposts or abutments, which is the distinguishing feature of this form of arch; Ger. *hoher Mittelpunkt Bogen*—i.e. a high-centred arch; also *maurischer Bogen*—pron. mowr-eesh-err. Syn. Fr. for "recessed arch," *Arc renfoncée* (from *renfoncer*, to drive farther on)—pron. rahn-faun-say; Ger. *zurückweichender Bogen* (*zurückweichen*, to recede, to give way)—pron. tsoo-ruek-vy-chen. Syn. Fr. for "trefoiled arch," *Arc en ogive avec trois feuilles*—pron. trwah feuhl; Ger. *Dreitheilig-gothischer* (dry-tile-ich-go-tish-err) *Bogen* (*Theil*, a part): a more precise synonym is *Dreikleeblatt-gothischer Bogen*, or simply *Dreikleeblattbogen* (*Kleeblatt*, or simply *Klee*, the trefoil plant). Syn. Fr. for "square-headed or Tudor arch," *Arc en bande or en linteau* (*lintel*)—pron. arkk ahn laihn-toh; also *Arc droit style Tudor*—pron. drwah steel tooh-dohr; Ger. *Geradhaupziger Bogen*—pron. geh-rah-d-howpt-ich-err. Syn. Fr. for "arch or vault brick," *Brique à voûte*; Ger. *Bogenziegel*. Syn. Fr. for "arch-stone," *Pierre à voûte*—pron. pee-air; Ger. *Bogenstein*. Syn. Fr. for the "central arch" in a series, *Arc maîtresse*, a mistress arch—pron. may-tress; Ger. *Mittel- or Hauptbogen*. Syn. Fr. for "arch keystone," *Claveau*—pron. klah-voh; also *Vousoir or Vousseau centrale*—pron. vooch-swahr or vooch-soh sahn-trahl; Ger. *Bogenkeilstein* (*Keil*, a wedge), wedge-formed or -shaped—pron. boh-genn-kile-stine. Syn. Fr. for "arch pier or impost," *Arc membrette*—pron. arkk maim-brett, or *Arc maître poteau*—pron. may-terr poh-toh; Ger. *Bogenpfoste*—pron. pfoss-teh, or *Bogenimpost*—pron. eem-posst. Syn. Fr. for "arch buttress," *Arc boutant*—pron. booh-tahn, or *Arc contrefort*—pron. kohn-terr-forr; Ger. *Bogenstrebe Pfeiler*—pron. stray-beh-pfîle-err. Syn. Fr. for "archwise or archlike," *de Voûte*—pron. deh vooht, or *en forme à Voûte*—pron. ahn form ah vooht; also *Voûté*—pron. voohtay, or *comme une Voûte*—pron. komm uuhn voot; Ger. *Bogenförmig*—pron. boh-genn-foerr-mig; also *Gewölbe*—pron. geh-voehll-beh. Syn. Fr. for "arched work," *Ouvrage voûtée*—pron. ooh-vrahj vooht-tay, or *Ouvrage centrée*—pron. sahn-tray; Ger. *Bogenwerk*—pron. boh-genn-vairrk, or *bogenförmige Arbeit*.

Architecture. The art and science of designing, planning, and erecting buildings, public and private. Der. From the Greek *archi*, and *tektôn*, *archi* being a prefix synonymous with our word arch, and *tektôn*, a workman, one able to work out buildings. Syn. Fr. for "architecture" (same spelling as our word)—pron. ahr-kee-teck-tuehr; also *l'Art de bâtir* (to build)—pron. lahr deh

bah-ter; Ger. *Architektur*; also *Baukunst* (knowledge of building)—pron. bough-(ou as in now) koohnst. Syn. Fr. for "classical architecture," *Architecture classique*—pron. klah-seek; Ger. *classische Baukunst*—pron. klas-sish-eh. Syn. Fr. for "Grecian (classical) architecture," *Architecture grecque*—pron. greck; Ger. *griechische Baukunst*—pron. greesh-ish-eh. Syn. Fr. for "Roman (classical) architecture," *Architecture romaine*—pron. roh-maihn. Syn. Fr. for "Gothic or Pointed architecture," *Architecture gothique*—pron. go-teek, or *Architecture style ogival*—pron. steel oh-jhee-vahl; Ger. *gothische Baukunst*—pron. go-tish-eh; also *Spitzbogen Baukunst*—pron. shpits-boh-genn.

Armature, in Carpentry. A term sometimes employed to denote trussed framing or trussing. In French it is the same word as ours—pron. ahr-mah-tuuhr; Ger. *die Armatur*.

Arrangement, in Architectural Design and in Building Plans. The disposition of the parts in due order and sequence: the way in which the arrangement is carried out constitutes the practical value of the plan—is, in fact, planning. *Der.* From the French *arranger*, and this from *ad*, and *ranger*, to range, to set in order—pron. rahn-jhay. Syn. Fr. *Arrangement*—pron. ah-rahnj-mahn; also *Agencement*—pron. ah-jahnce-mahn (disposition); Ger. *Anordnung*—pron. ann-orr-d-noong.

Artesian Well. The name given to that system of obtaining water from a subterranean deposit by a bore-hole of exceedingly small diameter, as compared with the large diameter of the circular pit dug in ordinary well sinking. The system derives its name from Artois, in which province it was first carried out in a much more simple way than is now done with improved boring machinery at command. Syn. Fr. *Puits artésien*—pron. pwee zahr-tayz-ee-ain; also *Puits foré*—i.e. a bored or pierced well—pron. pwee forr-eh; Ger. *artesischer Brunnen*—pron. ahr-tay-zish-err broon-nenn.

Ashlar Work, in Masonry. Syn. Fr. *Maçonnerie en pierres de taille*—pron. mah-sonn-ree ahn pee-airr deh tah-eel, or *à Maçonnerie*—pron. mah-sonn-ahj; Ger. *Quadersteinwerk*—pron. kwah-derr-stine-vairrk.

Ashler, or Ashlet, in Carpentry. Small vertical posts placed under the timbers of a roof, near to and parallel with the walls, to form a species of vertical wall with lath and plastering on each side of an apartment in a roof—a method of getting rid of part of the sloping portion of the roof in an attic room. Syn. Fr. *Lambourde*—pron. lahmb-board; also *Soutien*—pron. soo-tyain; Ger. *Lagerholz*—pron. lah-gerr-holts; also *kleine or Seitenpfoste eines Dachzimmers*—pron. kline-eh or zy-ten pfoss-teh ine-ess dach-tsim-merrs.

Assembling Piece. (See Assemblage in text.) Syn. Fr. *Lingoir*—pron. leehn-swahr; Ger. *Vereinbalken*—pron. ferr-ine-ball-kenn (*Verein*, a union, place of meeting, as a tie-beam of a roof-truss is the beam on which the other timbers rest or meet. Syn. Fr. for "assembling," *Aboutement*—pron. ah-boot-mahn; Ger. *Balkenbeklemmung*—pron. klemm-oohng. Syn. Fr. for "to assemble," *Assembler*—pron. ah-sahm-blav; also *Jointer*—pron. jwahn-tay; Ger. *Balkenverbindung*.

Attach, To. A term frequently used in building construction, as to attach an offset—a small room or building—to the main building, to attach a board to a beam, etc. *Der.* The word is from the French *attacher*, and this from the Celtic *tach*—sometimes spelt as *tac*—a nail or small nail by which one body can be fastened, fixed (attached) to another. Syn. Fr. *Attacher*—pron. ah-taw-shay; also (as in the case of stone, wood, and ironwork) *Joindre*—pron. jwahn-derr; also *Accoupler* (to couple)—pron. ah-koop-leehr; Ger. *Verbindung*—pron. fairr-been-doong; also *Anknappen* (*knap*, close, tight)—pron. ann-napp-fenn.

Awl, in Tools. A small hand implement by which holes are made in wood previous to driving in nails by which two pieces are secured together. The hole is made to facilitate the entrance of the nail and to prevent its splitting the wood. The awl has its point chisel-shaped, and its tongue or tail is driven into the end of a small rounded handle of hard wood, and a brass ferule passed round at the point of junction of awl and handle to keep the latter from splitting. The awl is frequently called a "brad-awl," as it is used frequently to bore the holes in wood to receive a species of nail called a "brad." In Scotland the awl is known as a "brogue" or "brogg." Syn. Fr. for "awl," as used by joiners, *Mèche*—pron. maysh; also *Alesoir*—pron. all-eh-zwahr; also *Broche*—pron. brosh; Ger. *Spitzbohrer*—pron. shpits-boh-rerr; also *Vorstecher*—pron. forr-stech-err. Syn. Fr. for a "scribing awl"—that is, for scoring, scratching or marking or indenting a line on the surface of any material, the straightness of the line being secured by the use of a straight-edge along which the scribing or marking awl is drawn by hand—*Pointe* or *Broche* or *Mèche à tracer*—pron. pwahnt ah trah-say; Ger. *Reissahle* (*Ahle*, an awl generally)—pron. rice-ah-leh.

Back (see text). *Der.* The word is almost identical with the Old English *bac*, used to denote the upper surface of the body of an animal, as a horse or ox—the surface stretching from the head to the tail. In this case it was synonymous with "top." In time the word came to be used

to indicate that part or surface of a body opposite to that which is usually exposed or most frequently seen: the back of a body is that which is not generally exposed to view. Syn. Fr. for "back of an arch," *Extrados d'un arc* or *d'une voûte*—pron. aix-trah-doh duuhn ark, voot; Ger. *Oberbogen* (ober, higher or upper)—pron. oh-berr-boh-genn, or *Ueberbogen* (über, over)—pron. ooheh-ber; also *Aussenbogen* (aussen, outside)—pron. owss-enn.—"Backs," in *Carpentry* (see text). Additional synonyms: Fr. *Racinal de comble*—pron. rah-see-nahl day kohm-bell; Ger. *Hauptdachbalken* (head beam of a roof-truss)—pron. howpt-dakk-bahl-keunn. Syn. Fr. for "back of a window," *Lambris* (wainscot or wood lining) *d'appui* (*appui*, support, stay, prop) *d'une fenêtre*—pron. lahm-bree dah-pweeh duuhn fay-nett-err; Ger. *Holzkleidung* (wood lining or clothing) *einem Fenster-hinter* or *-rück* or *-brüst* (back or breast)—pron. holtz-klide-oong ine-emm fenn-sterr-heen-terr, rooh-eek, brooh-eest. Syn. Fr. for "back light," in house building, *Jour* or *Fenêtre de derrière*—pron. jhoor or fay-nett-terr day day-reeh-air; Ger. *Rücklicht von zimmer*—pron. rooh-eek-leeght fonn tzeem-merr; also *Hinterezimmerlicht*. Syn. Fr. for "back room," in house building, *Chambre de derrière*—pron. shawm - berr day day-ree-air; *Pièce* (pee-ace) is sometimes used as a synonym for chamber, just as we call a cup and saucer, for example, a "piece" or one cup of the complete set; Ger. *Hinterzimmer*—pron. heen-terr-tzeem-merr. Syn. Fr. for "back shop," in street architecture, *Arrière-boutique* (shop behind the front or street shop)—pron. ah-ree-air booh-teek; Ger. *Hinterladen* (*Laden*, a shop)—pron. law-denn; also *Bude* (more properly a stall, as in the open market-place)—pron. buuh-day. Syn. Fr. for "back yard," in house building, *Arrière cour*—pron. koohr, or *Cour à dos de maison*; also *Basse-cour*—pron. bass-koohr, or *Cour de derrière*; Ger. *Hinterhof* or *Rückhof*.

Bakehouse, in Shop or Street Building. Der. The word bake comes from the Old English *bacan* or *bachen*, to dry, to make hard by heat. The special meaning is to prepare bread-stuffs for food. Syn. Fr. *Boulangerie*—pron. boohl-ahn-ger-ree; Ger. *Backhaus*—pron. bakk-house, or *Bäckerei*—pron. beck-err-rye.

Ballast, in Road Making. This word, in relation to the use here named, has a curious derivation. It is from two Old English words—*bat*, a boat, and *last*, a load—in allusion to the weight placed in the hold of a vessel to steady or trim it; and, as this was made up of sand, gravel, and small stones—which were most ready to hand on the shore or the banks of a tidal river, but having great weight and a facility for adapting

itself to spaces—it lay solidly in the bottom part of the hold, without shifting much. The same littoral material, being convenient and valuable for road- and footpath-making, when used in such work was called by the same name by which seafaring people designate it. Syn. Fr. for "ballast" generally, *Sable*, or *Balast*; Ger. *der Ballast*—pron. bah-last. Syn. Fr. for "stone ballast," otherwise known as "road metal," *Pierres cassées* (broken stones)—pron. pee-airrs kas-say; Ger. *Knack*, or *Steinknack* (*knacken*, to crack). Syn. Fr. for "ballast a road or way," *Ensabler un chemin* or *une voie*—pron. ahn-sah-blay euhn shemm-maihn, uehn vwah; Ger. *Strasse* or *Landstrasse besteinern*—pron. strah-seh, lant-strah-seh beh-stine-enn. Syn. Fr. for "ballasting a road," *Ensablement*—pron. ahn-sah-bleu-mahn; also *Empierrement*—pron. ahm-pee-airrmahn; also *Balastage*—pron. bah-lass-tahj; Ger. *Strassenknacksteinpackung*—pron. strah-seh-knack-stine-pakk-ooing; also *Sandschüttung* (*schütten*, to shoot, as from the tail or end of a cart)—pron. zant-shuett-toong; also *Sandpackung*.

Balustrade Parapet. Der. Our word is from the French *Balustre*—pron. bah-luusterr—is in fact the same word as one of the French names, *balustrade*. Another French synonym is *Rebord*—pron. ray-bohrd, an edge, a border; another is *Accudoir*—pron. ah-kooh-dwah (from *s'accouder*, to lean on one's elbow, which one almost intuitively does on going to a balustrade, especially if it overlooks a fine prospect, or, say, a beautiful garden).

Bar. A long piece of wood or iron of comparatively small cross section, this being either circular, square, or rectangular. Der. From the French or German, in both cases *barre*, or from the Italian or Spanish *barree*, possibly from a word spelt like our own, meaning the branch of a tree, which, if it be long enough and straight, gives a good idea of a bar. Syn. Fr. *Barre*; also *Lingot*—pron. laihn-goh; Ger. *Barre*—pron. bar-reh; also *Stange*, a pole, a perch—pron. stang-eh. Syn. Fr. for "chimney or breast bar," a wrought-iron bar built in near the gathering at the throat to support the brickwork or masonry, *Barre de cheminée* (see Chimney in text); Ger. *Kaminbarre*—pron. kah-mean-bar-reh. Syn. Fr. for "window bar," *Barre d'une fenêtre*—pron. bahr duuhn feh-nay-terr (also for "bars of a window," *Barreaux pour la croisée*—pron. bahr-oh poor lah crwah-zeh); Ger. *Fensterstange*. For "bonding hoop-iron," notched, toothed, or saw-edged—i.e. having short diagonal cuts made at short intervals along the edges, and bent up in opposite directions to give the hoop-iron a hold of, or to key with the bricks and mortar of a wall so strengthened, Syn. Fr. *Bande fer dentilé*—pron. bahnd fare dahn-

teel-eh; Ger. *Zahnbandeisen*—pron. tsahn-bant-ize-enn.

Barn, in *Farm Architecture*. That apartment of a farmery or homestead or farm steading—the last name being that universally used in Scotland and the northern counties of England abutting on that country—in which the grain is threshed out and separated from the straw, which is partly stored up in another and an adjacent part of the building termed a straw barn. Der. Curiously enough, from the Old English *bereem*, and this from *bere*, barley, and *em*, a close, or inclosed place—barley being the most valued and the most largely cultivated crop in the olden times. Syn. Fr. *Grange*—pron. grahng-jhe or grahnje; also *Lassière* or *Las*—pron. lah-see-airr, lah or lass (*las* meaning tired or wearied out, it is difficult to conceive of this term being given to denote this part of a farmery, unless it has special reference to the fact that threshing out corn by the hand-flail is perhaps the most fatiguing work of the farm); Ger. *der Barn*; also *Schuer*—pron. shoe-err. Syn. Fr. for “barn (threshing floor),” *Aire*; Ger. *Tenne*—pron. ten-eh; also *Dreschtenne* (from *dreschen*, to thresh)—pron. dresh-ten-eh.

Barrowman. The labourer who wheels the barrow containing soil, rubbish, etc., in foundation work, etc. Syn. Fr. *Brouettier*—pron. brooh-ett-ee-eh; also *Rouleur*—pron. rooh-luurr; Ger. *Schubkanenträger*—pron. shoob-kan-enn-trah-gerr.

Base (of a structure). Syn. Fr. *Fondement*—pron. fohnd-mahn; Ger. *Grundlage*—pron. groohnt-lah-geh. Syn. Fr. for “base or foundation of a road,” *Base* or *Fondement d'une route*—pron. duehn root; Ger. *Grundlage* or *Packlage einer Strasse* or *Landstrasse*. Syn. Fr. for “basement story of a building,” *Étage soubassement*—pron. eh-tahj soo-bahz-mahn; Ger. *Erdgeschoss*—pron. erdd-geh-shoss, or *Kellergeschoss*.

Batten (see text), **To**. Syn. Fr. *Construire en volige*—pron. kohng-strweer ahng voh-leejh; Ger. *mit Dünnen ausfüllen*—pron. meet duuhen-enn owss-fooh-eel-enn. Syn. Fr. for “battening,” *Construction en volige*; Ger. *Dünnenmachen*. Syn. Fr. for a “battened (otherwise termed a ledged) door,” *Porte en volige*, or *Porte à panneaux fausse en barres* or *en volige*—i.e. a door with false panels in bars or battens; Ger. *Dünnenthur* or *Lattenthur*.

Batter, **To** (see text). Syn. Fr. *Faire en pente* or *en talus*; also *Construire en pente*; Ger. *Böschungmachen*. Syn. Fr. for “battering,” *Gauchissement*—pron. goh-sheess-mahng; Ger. *Böschungung*. Batter is also used in another sense, as indicating a part which projects or bellies out in a sloping line; the French synonyms for the term in this sense are *Forjeter* and *Boucler*—pron.

forr-jett-eh, booh-klay; Ger. *Bauchenwerk* (from *Bauch*, the belly)—pron. bough-(ou as in now) kenn-vairrk; also *Ueberhangenwerk*—pron. ooh-ee-berr-hang-genn-vairrk.

Bay of a Barn, in *Farm Architecture*. A part at one end or side of a barn floor marked off, as by battens in line, in which to place grain, etc., to be kept apart from the other materials. Syn. Fr. *Baye* or *Chambre d'une grange* or *las*; Ger. *Scheurabtheilung*. Syn. Fr. for “bridge bay,” *Travée du pont*—pron. trah-vay duuh pohn or pohng. The term “bay” is sometimes employed as synonymous with “void”—that is, the opening made in a wall in which a door or a window is to be fitted. Syn. Fr. *Porte-baye* or *Baye pour une porte*; also *Baye pour une fenêtre* or *Fenêtre-baye*; also *Porte* or *Fenêtre ouverte*; Ger. *Thüröffnung*—pron. tooh-err-oh-eff-noong; also *Fensteröffnung*.

Bead (see text). Der. Curiously enough, from the Old English *bidden*, to pray (the German *beten*, to pray, comes from the same sound), referring to the rounded spherical or spheroidal shaped pieces of glass perforated in the centre and strung together, termed the rosary, on which the prayers were reckoned or counted off. The rounded edge of the flatter kind of beads gives a good idea of the “bead” of English ornamented work in building construction. Syn. Fr. for “rebated bead,” *Baguette infraisée* or *feuillée*—pron. bah-gett fuuh-eel-eh (see *Rebate* in text); Ger. *Rundstabfalten*—pron. roond-stabb-fahl-tzeunn. Syn. Fr. for “cock bead,” *Boudin* (pudding-shaped)—pron. booh-dahng or -dahn; Ger. *Stübchen*—pron. stooh-eeb-kenn.

Beam (see text). Der. The word is from the Old English (same in spelling as ours), meaning a post or a tree. Syn. Fr. for “built beam,” *Poutres assemblées en deux* or *trois pièces*—pron. pooh-terr ah-sahm-blay ahng duuh, trwah pee-ayss; Ger. *Balken mit zwei* or *drei Stück*—pron. bahl-kenn meet tzyvye, drieh stooh-eek. Syn. Fr. for “built beam joined together with indented surfaces or scarf-joints and secured with screw-bolts,” *Poutres assemblées en endente série par des boulons et écrous*; Ger. *Balkenweizahnte mit Schraubenbolzen*. Syn. Fr. for a “built beam with keys,” *Poutre calée*; Ger. *Balken mit Keil*. Syn. Fr. for “fishing a beam,” *Poutre éclissée*—pron. pooh-terr eh-kleeze-eh—from *éclisser* (same pron.), to splinter; Ger. *Balken mit Seitenstück verstärkung*—that is, the two pieces joined and kept together and strengthened with side pieces. Syn. Fr. for “notched beam,” *Poutre peigne* (comb-like surface or face)—pron. pooh-terr pay-ahng, or *Poutre endentée*—pron. ahng-dahng-tay; Ger. *Kamm-* (comb) *balken*. Syn. Fr. for “an

overloaded or overstrained beam," *Poutre fatiguée* or *qui se fatigue*—pron. fah-teeg-eh, kuh say fah-teeg; also *La poutre soujrit* ("the beam suffers")—pron. lah pooh-terr (from *souffrir* [sooh-freer], to suffer, to endure); Ger. *Balken mit zu viel Ladung* (load)—pron. bahl-kenn meet tsooh feel lah-duuhng. Syn. Fr. for "beam strengthened with iron bands," *Poutre armée avec bandes de fer*; Ger. *Balken mit Eisenbands verstärkte*.

Bearing (of a beam). *Der*. The word bear is from the Old English *beran*, to support, to carry. Syn. Fr. for "bearing of a beam," *Portée d'un poutre*—pron. pohr-tay duhn pooh-terr; Ger. *Freitragung eines Balkens*.

Bed, To (see text). Syn. Fr. *Fixer*—pron. feex-eh; Ger. *Festlagen*. Syn. Fr. for "bed of bricks," *Lit des briques*—pron. lee day breek; Ger. *Bett von Ziegelstein*. Syn. Fr. for "bed of stone," *Lit de pierre*—pron. pee-airr; Ger. *Bett von Stein*. Syn. Fr. for "bed of mortar," *Lit de mortier*—pron. mohr-tee-ay; Ger. *Bett von Mörtel*. Syn. Fr. for "bed of sand," *Lit de sable*—pron. sah-bell; Ger. *Bett von Sand*. Syn. Fr. for "bedding joints," *Joints découchés*—pron. jwahn't day-koo-shay.

Beech, in Timber Trees. A forest tree yielding a hard wood much used in cabinet-making as a cheap substitute for mahogany, the botanical name for which is *fagus sylvatica*. Syn. Fr. *Hêtre*—pron. hay-terr (this is the synonym generally used), or *Hetraie*—pron. hett-ray; also *Fouteau*—pron. foo-toh, or *Fau*—pron. phoh; also *Fayard*—pron. fye-yard; Ger. *Buche*—pron. booh-kay. Syn. Fr. for "beechwood," *Bois de hêtre*—pron. bwah deh hay-terr; Ger. *Buchenholz*—pron. boo-chenn-hol'ts.

Bell. The metal hollow body or appliance from which sound is given out by its hammer or clapper coming in contact more or less violently with the metal. *Der*. Our word comes from the Old English *bellan* or *belle*, to make a loud noise; our word bellow comes from this also. Syn. Fr. *Cloche*—pron. klosh; Ger. *die Glocke*—pron. dee glock-keh. Syn. Fr. for "bell of a capital" (see Text for definition), *Campane d'un chapiteau*—pron. deuhn shah-peehtoh; also *Campane d'une colonne*—pron. kahn-pahn duehn colonn; also *Tambour d'un chapiteau*—literally "drum of a capital"—pron. tahn-boorr deuhn shah-peehtoh; also *Cloche d'un chapiteau*; Ger. *der Kessel eines Kapitals*, from its supposed resemblance to a kettle; also *die Glocke des Kapitals*. Syn. Fr. for "hammer or clapper of a bell," *Battant* (from *battre*, to beat, to strike)—pron. bah-tahn; also *Marteau* (a hammer) *d'une cloche*; Ger. *Glockenklöppel* (our clapper comes from this), from *klopfen*, to beat. Syn. Fr. for "bell crank," *Bascule d'une cloche*—pron. bahs-kuehl, or *Manivelle d'une cloche*—pron.

mah-nee-vell; Ger. *Wirbel einer Glocke*—pron. veehr-bell, or *Schwingbalken*—pron. shroong; also *Glockensichwirbel*—pron. gloh-kenn-zich-veehr-bell. Syn. Fr. for "bell metal," *Métal de cloche*—pron. may-tahl, or *Bronze de cloche*—pron. broh'nz or broh'nz; Ger. *Glockenmetall*. Syn. Fr. for "bell wire," *Fil de métal pour les cloches*; also *Coulisseau*—pron. koooh-leece-oh; also *Renvoi d'un sonnette*—pron. rah'n-vwah duhnsoh-nette; Ger. *Glockendraht* or *Metalldraht*; also *Glockenzug* or *Schellenzug* (from *schellen* [shell-enn] to ring the bell)—pron. shell-enn-tsoohg. Syn. Fr. for "bell pull" (see Text). Our provincialism "clinkle" comes from *Klingel*, and this from *klingen*, to sound (our provincialism "clinken" from this). Syn. Fr. for "bell hanging," *Ouvrage des sonnettes*—pron. ooh-vrahj day soh-nett, or *Pose des sonnettes*—pron. poze; Ger. *Anbringung der Schellen*, or *Schelleneinsetzung*. Syn. Fr. for "bell hanger," *Ouvrier des sonnettes*—pron. ooh-vree-eh; also *Poseur* (placer) *des sonnettes*—pron. poh-zeuhr; Ger. *Schellenarbeiter*—pron. ahr-bite-err; also *Schelleneinsetzer*.

Bellows, in Smith's Work and in Organ Work for Public Buildings. The apparatus used to obtain a stream or continuous current of air, with the principle of which, as exemplified in the working of the household bellows, all are familiar. *Der*. The word comes from the Old English *boel*, a bag, and this from *belgan*, to swell. Syn. Fr. for "bellows" (in common language termed a pair), *Soufflet*—pron. sooh-flay (from *souffler* [sooh-flay], to blow or breathe strongly); Ger. *Balg* (a skin or inclosing bag)—pron. bahlg (this is almost identical with the Old English word above given); also *Blasebalg* (blast skin or bag)—pron. blahz-eh-bahlg (from *blasen*, to blow or breathe strongly)—our word "blast" comes from this. Syn. Fr. for "mechanism or apparatus for working bellows," *Mécanisme* or *Appareil* or *Mécanique de soufflet*—pron. may-kah-neesm, ah-pahr-ayl, may-kann-eek deh sooh-flay; Ger. *Triebwerk vom Blasebalg* or *Blasebalgtriebwerk*—pron. treeb-eh-vairrk.

Bench (see text), **Covered**. Syn. Fr. *Banquette*—pron. bahn-kett; Ger. *Werkbankdeckung*—pron. vairrk-bank-day-koohng. Syn. Fr. for "bench plane," in tools, *Rabot à planer* or *d'établi*—pron. rah-boh ah plaw-neh, dayt-ah-blee; Ger. *Werkbankhobel*—pron. hoh-bell. Syn. Fr. for "bench clamp or screw vice," *Servante à banc*—pron. sair-vahngt ah bahn or bahng.

Bend—Bent, in Construction. *Der*. Our word comes from the Old English *bendan*, to crook, to turn from one direction to another; or it is from the Latin *pandere*, to bend, to crook. Syn. Fr. *Courber*—pron. koohr-bay; also *Fléchir*—pron. flay-sheer; Ger. *Biegen*—pron. bee-genn; also *Krümmen*—pron. kruehm-menn. Syn. Fr.

for "to bend or curve out, to camber a beam," *Cambrier une poutre*—pron. kahn-bray uuhn pooh-terr; Ger. *Bogenförmig*—pron. foehr-mig. Syn. Fr. for "bend of a road," *Crochet d'une voie*—pron. krosh-ay duuhn vwah (*crochet* is a hook). Syn. Fr. for "bending," *Courbage*—pron. koohr-bahj; Ger. *Krümmung*—pron. kruehm-oong. Syn. Fr. for "bendable," capable of being bent, *Souple*—pron. sooh-peil (our word *supple* comes from this); also *Fléxible*, *Courbable*, or *Pliable*—pron. flaxe-eeh-bell, koohr-bah-bell, pleeh-ah-bell. Syn. Fr. for "bent," *Croche*, *Courbé*, or *Crochu*—pron. krosh, koor-bay, kroh-shueh; Ger. *Gebogen*; also *Krumm*. Syn. Fr. for "bent timber," *Bois courbé*—pron. bwah koohr-bay; Ger. *krummes Holz*.

Béton (see text). Syn. Fr. for "hydraulic beton," *Béton or Mortier hydraulique*—pron. bett-ohng, mohr-tee-ay hee-droll-eek; Ger. *hydraulisches Steinmörtel*—pron. hee-drowl-eesh-ess stine-moh-er-teel. Syn. Fr. for "beton work or betonning," *Bétonnage*—pron. bett-ohng-ahje; also *Ouvrage en béton*—pron. ooh-vrahj ahng bett-ohng; Ger. *Steinmörtelwerk*.

Bevelled (see text for Bevel). Syn. Fr. *Assemblé en biais*—pron. ah-sawhm-blay ahn bee-ah-ee; Ger. *Schräge*—pron. shrah-eeg-eh. Syn. Fr. for "beveling," *Equerrage*—pron. eh-kerr-ajh; Ger. *Schrägemachen*—pron. maw-kenn. Syn. Fr. for "to bevel" (see text), *Assembler en biais*; Ger. *Schrägen*; also *Gehren*—pron. gay-renn. Syn. Fr. for "bevel plane," *Guillame à onglet*—pron. gwheel-ahm ah ohng-glai; also *Tampon*—pron. tahn-pohn.

Bind, To, in Construction. To tie or connect together. *Der.* Our word comes from the Old English *bindan*, to tie together. In construction it is often used as synonymous with bond, as in binder-stone, binding-stone, or bonder- or bond-brick. Syn. Fr. for "binding-pieces," in carpentry, as trimmers, purlins, etc., *Enchévêtreure*—pron. ahn-shev-eh-truehr, or *Chevêtre* (a bandage)—pron. shevv-eh-terr; also *Ventrière*—pron. vahn-tree-airr; Ger. *Bindeholzbalken*—pron. binn-deh-hollts bahl-kenn; also *Bandholz*—pron. bant-hollts. Syn. Fr. for "binding-stone," *Pierre attache*—pron. pee-airr ah-tahsh; Ger. *Bindeholz*, or *Bandstein*. Syn. Fr. for "binding-beam or bearer," *Support de solivure*—pron. suuh-porr deh soh-leeve-uuhr; Ger. *Untersugbalken*—pron. oohn-terr-tsoohg. Syn. Fr. for "binding-ties or pieces," in carpentry, *Moises jumelles*—pron. mwahz jueh-mell; Ger. *Gurtbalken* or *Gurt-holz* (from *gürten*, to girdle or tie round)—pron. goorrt; also *Gürtel*—(a girdle) *holz*. Syn. Fr. for "binding screw-bolt and nut," *Boulon et écrou à pression*—pron. booh-lohn eh eh-krooh ah press-yohn; Ger. *Druck-schraubenbolzen* (from *drucken*, to press, to

compress, to squeeze together)—pron. drook-shrowb-enn-boll-tsenn. Syn. Fr. for "binding-rope," as in tying putlogs and poles in brickwork building together, *Cordon à pression*—pron. korr-dohn, or *Cordon pro-longe*—pron. proh-long; Ger. *Zugstrick* (cord, string, rope)—pron. tsoog-shtrick; also *Zugtau*—pron. -tow (ow as in *now*), or *Zugseil*—pron. -zile; also *Langestrick*, *Lange-tau*, or *Langeseil*; also *Schlaustrick* (from *schlappen* [shlap-penn], to drag).

Birch Wood. Syn. Fr. *Bois de bouleau*—pron. bwah deh boohl-oh; Ger. *Birkenholz*.

Bit Borer, in Tools. *Der.* The word bit is from the Old English *bian*, bite, and this from *bitan*, to bite, meaning that a bit is a small piece, as much only as can be severed by, or bitten off by, the mouth. Syn. Fr. *Pointe*—pron. pwahn; also *Tranchant*—pron. trahn-shahn (from *trancher* [trahn-sheh], to cut off, to divide); Ger. *Bohrstück* (boring piece)—pron. bohr-stueck; also *Bohrholz* or *Bohrreisen*, wood or iron borer.

Bitumen, in Materials. Mineral pitch, a tarry-like substance, when melted highly combustible. *Asphalte* is a certain kind of bitumen largely used in forming a concrete in conjunction with other minerals, as crushed stone in forming roads, making footpaths, or covering courtyards, cellar floors, etc. *Der.* The word is simply the Latin *bitumen*, a mineral pitch. Syn. Fr. *Bitume*—pron. bee-tuuhm; also *Asphalte*—pron. ahss-falt; also *Goudron* (tar) *minéral*—pron. gooh-drohg mee-nay-rahl; Ger. *Bitumen*—pron. beet -uuh -menn, or *Asphalt*—pron. ahse-falht; also *Erdepech* (earth pitch)—pron. err-day-paik, or *Erdeharz* (earth resin)—pron. hartz. Syn. Fr. for "bituminous," *Bitumineux*—pron. bee-tu-mee-nuuh.

Bi-vault. A term in building, meaning a vault repeated, a double vault. Syn. Fr. *Une voûte double*—pron. uuhn vocht doo-bell; Ger. *Doppelgewölb*—pron. doh-pell-gay-vohlb. Syn. Fr. for a "doubled vault," *Une voûte doublée*—pron. dooh-blai; Ger. *Doppelgewölbe*—pron. gay-vohl-beh.

Black, in Colour. Strictly it is no colour, as it absorbs all other colours and reflects none: hence it may be called the negative of colour, as white, which is strictly also no colour, inasmuch as it reflects all colours and absorbs none, may be said to be the converse of this, the positive of colour. *Der.* Our word is from the Old English *blac*, dark or night-like—the opposite of white, which is light-like. Syn. Fr. for "black," *Noir*—pron. nwahr; Ger. *Schwarz*—pron. shvartz. Syn. Fr. for "blacklead pencil," *Crayon noir*—pron. kray-yohng; Ger. *Schwarzbleistift* or *-pinsel*—pron. blice-steeft, peen-seal. Syn. Fr. for "ivory black," *Noir d'ivoire*—pron. deev-wahr; Ger. *Eisenbleiswarz*—pron. izenn-bine. Syn. Fr. for "black-lead,"

Graphite—pron. grah-feet; also *Plombagine*—pron. plom-bah-jheen, or *Plomb*—pron. plohm; also *Plomb de mine*—pron. plohm day meen; Ger. *Plombagin*; also *Reissblei* (*Blei* literally "sketch or sketching lead")—pron. rice-blyee.

Blacksmith. The workman who works in iron and steel, and forges or hammers into shape the different parts required in the ironwork of building construction: so called either from the black colour of the materials he works with, or from the begrimed appearance of the hands, arms, and face of the workman. Syn. Fr. *Forgeron*—pron. fohr-jher-ohn; also *Martineur* (from *marteau*, a hammer)—pron. mahr-tee-neuhr. This derivation is seen in the Ger. syn. *Hammerschmied*—pron. hahm-merr-shmeed; also *Eisenschmied* (iron smith)—pron. izenn. Syn. Fr. for "blacksmith's work," *Ouvrage de forgeron*—pron. oohv-rahj; Ger. *Hammerschmiede Arbeit*. Syn. Fr. for "black tar varnish or coating," *Vernis noir*—pron. verr-nee nwahr; also *Goudron*, mineral of a tar covering; Ger. *Steinkohlentheer* (coal tar)—pron. stine-koh-lenn-tayhr. Syn. Fr. for "to blacken," *Noircir*—pron. nwahr-seerr; Ger. *Anschwärzen*—pron. ann-shvair-tsenn.

Blasting, in Quarrying Stone. Der. Our word blast is almost identical with the Old English *bloest*, a puff of air or a gust of wind, from *bloesan*, to blow. The term is applied to one of the chief operations of quarrying, in the blowing up of masses of rock through the explosive force of gunpowder, gun-cotton, or nitro-glycerine, the operation being known as blasting or blowing to pieces masses of rock. Syn. Fr. for "blast," *Vent des soufflets*—pron. vahng day soo-flay; Ger. *Bläseluft*—pron. blah-eze-eh-luuhft. Syn. Fr. for "blasting tools," *Outils pour le tirage, à la poudre, or explosif à mine*—pron. ooh-teel poohr leh teer-ajh, ah lah pooh-derr, aix-ploh-seef ah meen; Ger. *Bohrungarbeitsen von Minen*; also *Werkzeuge zum Steinsprengen*—pron. vairkk-tzoog-eh. Syn. Fr. for "blasting powder or explosive," *Poudre or Explosif de mine*—pron. pooh-derr, aix-ploh-seef day meen; Ger. *Minen pulver*.

Blind Wall. Der. Our word blind is identical with the Old English, destitute of the power of sight or seeing. Syn. Fr. for "blind wall," a wall with no door or other opening, serving as a screen or shelter wall, *Paravent*—pron. pah-r-ah-vahn; Ger. *blinde Wand*—pron. blinnd-eh vahnd, or *Schicht*—pron. shicht; also *Mauer*—pron. mow-err, or *Festung*—pron. fess-tooing. Syn. Fr. for "blind door, window, or staircase," *Porte, fenêtre, escalier feinte* ("beyond door," etc.)—pron. pohrt, fenn-ay-terr, ace-kah-lee-eh; also *Fausse* (false door, etc.); Ger. *blinde Thür*—pron. tuehr, or *Fenster*—pron. fenn-ster, or *Treppe*—pron. trepp-eh.

Block. (See text.) Der. Our word is from the French *bloc*, or the Icelandic *blokke*, signifying a large mass of wood or stone. The term is often applied inaccurately; it is strictly applicable to a series of buildings inclosing a space, quadrangle or otherwise. Each face may present different architectural features. Syn. Fr. for "block of buildings," *Bâtiments ou maisons déposés à quadrangulaire*—pron. bah-tee-mahn ooh may-zon day-poh-zay ah kwah-drahn-guehlairr; also *Paté*—pron. pah-tay; Ger. *Häuserquadrat*—pron. hoy-zerr-kwah-draht. Syn. Fr. for "a block of houses placed between two roads or streets," *une Île*, an island—pron. ooh-neel, or *une Quartier*—pron. kahr-tee-eh; Ger. *Häusergruppe*, houses grouped together—pron. hoy-zerr-groop-eh, or *Häusergruppierung*—pron. -grooh-peer-oong (*Gruppe*, a group).

Blower, in Ironmongery. The shutters or leaves or pliable screen used in the latest or most improved fire-grates, by which the wide opening to the chimney between fire-bars and mantelpiece is wholly or partially closed, so as to increase the draught of the chimney or the rate of the combustion of fuel in the grate. Portable forms of blowers are used in well-regulated houses in place of the old-fashioned bellows, saving much time, as they are self-acting and kindle or increase the activity of the fire much more quickly and efficiently than the bellows. Syn. Fr. *Ventilateur aspirant pour la cheminée*—pron. vahn-tee-lah-teuhr ah-speer-awn poohr lah sheu-mee-nay, or lah shemm-ee-nay; Ger. *Kaminwindfang*—pron. kah-meen-veent-fahng.

Board (see text.) Der. The word is from the Old English *bord*, and this from *brad*, broad, a piece of timber of much greater width than thickness, and of greater length than width. Syn. Fr. for "feather-edged board," *Planche avec bord sciée en biseau*—pron. plangsh ah-vekk bohrd see-eh ahng bee-soh; Ger. *Brett mit Rand keilförmig* (*keilen*, to wedge)—pron. rahnt kile-foh-eerm-eeg. Syn. Fr. for "thick board," *Planche épaisse*—pron. planhsh eh-pah-eese; also *Madrier*—pron. maw-dree-eh, or *Cartelle*—pron. kahr-tell; Ger. *Dickbrett*—pron. deek-brett; also *Balkenplanke* (so thick that the boards may be likened to small beams)—pron. bahl-kenn-plahn-kay. Syn. Fr. for "a thin board," *Volige*—pron. voh-leejh; also *Planche mince* or *menu* or *délie*—pron. planhsh mainse, may-nuuh, day-leeh; Ger. *Dunnbrett*.

Bolt-hole. The word (see text) is identical with the Anglo-Saxon word meaning an arrow or a dart, and this from the root *pel* or *bel*, to throw or project forward. Syn. Fr. for "bolt-hole," the hole or aperture made in beams, etc., through which the screw-bolt is passed by which the scarfed ends of

beams or the binding-plates of the same are secured together, *La trou pour le boulon*; also *Entaille*—pron. ahn-tahil; Ger. *Bolzen-höhle* or *-loch*.

Bond (see text). *Der.* The word comes from the Old English *bundan* or *bonden*, and this from *binden*, to bind or tie together. Syn. Fr. for "Flemish bond in brickwork," *Ouvrage en brique à la flamande*—pron. flah-mahnd, or *Appareil à la flamande*—pron. ah-pahr-ail; also *Liaison à l'anglaise dans ouvrage en briques*—pron. lee-ay-zohn (from *lier* [lee-eh], to tie; Ger. *flämischer Verband im Ziegelwerk*—pron. flay-mish-err fairr-bahnt im tsee-gell-vairrk, or simply *flämisches Ziegelwerk*. Syn. Fr. for "Old English bond in brickwork," *Ouvrage en brique à l'anglaise*—pron. ah-lahn-glaze; also *Liaison à l'anglaise en ouvrage en brique*. For "bonder," the large stone used in walls which goes through the thickness or from surface to surface of a wall (hence also termed a "through"—which see in Text), Syn. Fr. *Pierre en boutisse* (*bout*, end)—pron. pee-airrahnh booh-teece; Ger. *Durchbindestein* (*durch*, through—pron. doorch).

Border (see text). *Der.* The word comes from the French, or the Old English: in both languages alike *bord* = the edge or outer margin of a surface or body. Syn. Fr. for "bordering," *Bordage*; also *Entourage*—pron. ehng-too-rajhe; Ger. *Einfassung*. Syn. Fr. for "brick border," *Bordure en brique*—pron. bohr-duuhr ahn breek; Ger. *Ziegelstein einfassung*. Syn. Fr. for "paving-stone border," *Bord du dallage*—pron. dah-lajh, or *Bord pavée*—pron. pah-vay; also *Dallage bande*; Ger. *Pflasterstein einfassung*—pron. flah-stair-stine. Syn. Fr. for "to border," *Border*, *Entourer*, *Garnir*, *Orner*, or *Faire orne*—pron. bohr-day, ahng-toor-eh, gahr-neer, ohr-nay, fair ohn; Ger. *Einfassen*, *Vernieren gestelle* or *fassen*—pron. ine-fah-senn, fair-neer-enn, fah-senn.

Bore (see text). *Der.* The word bore is from the Old English *borian*, though some derive it from the Latin *forare*, to perforate, to make a hole in or through a body. The French word *forer*, to bore, comes directly from the Latin, but there does not seem much connection between bore and the Latin term *forare*. Syn. Fr. for "to bore the earth or soil," an operation gone through to test the nature of the ground, as in making a foundation of a building or in the sinking of a well, *Forer le terrain*—pron. fohr-eh leh terr-ahn, or *Sonder* (sound) *le sol*—pron. sohng-day leh soll; Ger. *das Grund anbohren*—pron. groohnt. Syn. Fr. for "bore" or "a bore hole," *Trou*, *Vide*, or *Route de forure*—pron. trooh, veehd, root day fohr-uhr; Ger. *Bohrhöhle* or *-loch*—pron. bore-ho-eel-eh, lohk. Syn. Fr. for "boring tools," *Outils de forer* or *à sonder*—pron. ooh-teel; Ger. *Bohrwerkzeuge*. Syn.

Fr. for "bored," *Bien forée*—pron. bee-ahng or be-yahn for-ray; Ger. *Bohrrecht*—pron. raight. Syn. Fr. for "boring," *Forage*—pron. fohr-ajhe, or *Ouvrage en forage*; Ger. *Bohrung*—pron. boh-roong; Ger. *Bohrarbeit*.

Boss Work (see text). *Der.* The word boss comes from the French *bosse*, meaning something protuberant or stump or button-like. Syn. Fr. for "boss work," *Bossage*—pron. boh-sajhe; Ger. *Buckel*, *Bosse*, or *Knopfwerk*—pron. booh-kale, boss-eh, nopf-vairrk.

Botch. A term in daily use in workshops and in reference to work as indicating that some work or part of work is done in a careless, slovenly, awkward and wasteful, or what is often called a "bungling" way,—which latter term has a curious derivation, coming from the provincial or rustic German word *bangen*, to bang about (our word bang comes, indeed, from this), to beat or strike in an aimless, careless fashion. Others derive it from the Icelandic word *bongun*, unfinished or rude work. *Der.* The term "botch" comes from the Italian *bozza*, which, amongst other meanings, denotes a patch made on clothing. Syn. Fr. (or the technical or shop phrase for botch) *Loup*—pron. looh. This is the word for wolf, a cowardly animal, so that the shop phrase has much sarcastic and true meaning. Syn. Ger. *Bock*, a fault, a blunder. Syn. Fr. for "to botch," *Faire un loup*—pron. fayrr euhn looh; also *Louper*—pron. looh-pay; Ger. *Böcke machen*—pron. boekk-eh mah-chenn; also *Faulenzen*, to be idle or lazy—pron. fowl-en-tseenn.

Bottoming of a Road (see text). *Der.* The word bottom is from the Old English *bōttan*, the under side or part of a body. In construction it is often used as a synonym for base. Syn. Fr. for "bottoming of a road," the small stones, gravel, and sand laid on the surface of the foundation or wide and shallow trench cut in the soil in which the road is to be formed, *Pierres du fondation d'une chaussée*—pron. fohng-dah-sce-ohng shoh-say; also *Blocage d'une chaussée*; Ger. *Steines für die Grundplatte von Strasse*; also *Steinpacklage von Strasse*, or simply *Steinpacklage*—pron. pauk-lah-gay. Syn. Fr. for "bottom" of a body, *Fond* or *Cul*—pron. fohngd, kuul; Ger. *Boden*; also *Hintertheil* (hinder part)—pron. heen-terr-tile. Syn. Fr. for "bottom piece" in carpentry, *Mèche*—pron. mesh; also *Fond bois*; Ger. *Unterholz* or *-balken*—pron. oohn-terr. Syn. Fr. for "bottom rail," *Traverse inférieur*—pron. trah-vairs aihng-fairr-ee-oohr; Ger. *Unterfreis*.

Boudoir, in *Domestic House Architecture*. A small apartment or entertaining room set apart for the use of the lady or ladies

of the house—pron. booh-dwahr or -dwah. The derivation of the word does not show much of the gallantry which the French nation arrogate to themselves, and which we as willingly accord to them, although it is possible the name may have originated from a jocular designation given to it by some witty lady (and French ladies are noted for their wit)—for the term is a corruption of, or the word itself slightly altered in spelling, *Boudeur* (booh-duuhr), one who pouts, a spoiled or petted young lady, for example. This derivation is carried out or exemplified in the chief German names given to the apartment, as follows :—*Damenkleinekammer* (ladies' little room), or *Launen-kammer* or *-stübchen*—from *Laune* (low- [ow as in now] nay), temper, whim, caprice—meaning that this room is to be given up to the lady of the house, in the fittings, etc., of which she can carry out any whim, fancy, or caprice she may have. Another synonym, *Schmoll-kammer*, carries with it another curious meaning, *schmollen* being to pout or to be sulky.

Boulevard, in *Street Arrangements of a City*. This term, as well as the arrangement to which it is applied, is gradually being adopted in this country. In the French cities the boulevard plays an important part. It is generally a very wide street with side-walks or pavements of great breadth; a row of trees placed at comparatively short intervals along the line of street separates the pavement from the street or carriage-way proper. Originally the boulevard encircled a town, taking the run or course of the rampart or line of fortification—the ramparts being in the more peaceful modern times in many cases thus changed into a promenade. This gave the name; the French word *boule-ward*—pron. boohl-vahr, being from the German *Bollwerk*, a rampart, from which our English bulwark. The word boulevard denotes now a side street or promenade, planted on either side with trees. The German word is the same; another synonym being *Ringstrasse*—pron. ring-strah-say—i.e. a circular street, or rather road, in allusion to the rampart encircling a town.

Boundary Line. A term frequently used in describing the extent or area of plots of land for building purposes, etc. *Der*. The word is from the Old French or Norman-French *borne* (boohn), the limit of a given space. Syn. Fr. for "boundary," *Borne*, *Limite*—pron. born, lee-meet; Ger. *Grenze*—pron. grenn-tzay, a limit, a bond (from *Grenzen*, to place a limit to, to bound). Syn. Fr. for "to set out or plan the boundary," *Borner le terrain*; also *Aborner*—pron. ah-borner-nay; Ger. *Begrenzen*.

Bow Pencil—Bow Pen, in *Architec-*

tural Drawing. More frequently used perhaps in the inverted form "pencil bow" or "pen bow," or small compasses for the describing of circles of small diameter in pencil and in ink. Syn. Fr. *Compas petits*; Ger. *Kleinezzeichenzirkel*.

Bow Saw, in *Tools*. A form of saw having a narrow blade connected at the ends with an overhead framing curved in shape; hence the name. One form of it is much used on the Continent as a cross-cut saw. Syn. Fr. *Scie en ratchet*—pron. see ahn rah-shay (from *racheter*, a term in construction denoting setting straight or connecting two parts, as the bow or frame connects the two ends of the saw), or *Scie en arc*—pron. arrk; Ger. *Bogensäge*—pron. boh-genn-zay-geh, or *Bügel-säge* (*Bügel*, a bow, stirrup shaped)—pron. bueh-gell; also *Schiefsäge* (*schief* [sheef], crooked, oblique).

Box or Case of Drawing Instruments, in *Architectural Drawing*. *Der*. The word box is the same as the Old English *box*, a receptacle or framing, generally rectangular in section, and provided with a bottom and a movable hinged lid. Another derivation is from the Greek name for the boxwood tree, *puxos* or *puxis*, a wooden case. Syn. Fr. *Boîte*—pron. bwaht; also *Etui* (a case)—pron. ate-wee; Ger. *Büchse*—pron. buuh-eek-seh; also *Kasten*, a chest, case. Syn. Fr. for a "box of drawing or mathematical instruments," *Etui d'instruments pour le dessein*—pron. ate-wee dahn-strooh-mahn; also *Boîte d'instruments*; Ger. *Reisszeug-büchse*—pron. rice-tsoich-buuh-eek-say. Syn. Fr. for "boxings (see text) for windows or doors," *Chambrante d'une porte* or *d'une fenêtre*—pron. shahm-brahn duhn pohrt, fen-nay-terr; Ger. *Thürfutter* or *-fenster*—pron. tuueehr-foot-terr, fenn-stare. "Box" (loose) in stable building or farm architecture: a special place or room set apart for a horse in which he is free to move about, in place of being tied up as in an ordinary stable stall. The French have adopted our term for this, as they have done in nearly all the technical—even slang—terms connected with horses and horse racing. Syn. Ger. *Pferdeabtheilung*—pron. pfair-deh-ahp-tile-oong, or *Pferdekrippe* (*Krippe*, a crib, a manger, or a hurdle).

Brace (see text). *Der*. Our word is from the French *bras*, an arm, or from the Latin *brachium*, an arm, a prop, a support. Syn. Fr. for "diagonal brace," *Contrefiche*, or *Moise*, or *Décharge*, or *Echarpe* (fixed, steady), or *Inclinée*, or *Diagonale*—pron. cohn-terr-feesh, mwahze, day-sharrj, eh-sharp, aihn-klee-nay, dee-ah-goh-nahl; Ger. *Kreuzbalken*, or *-band* or *-strebe* (from *streben*, to strive, to struggle against)—pron. kroits-bahl-kenn, bant, -stray-beh. Syn. Fr. for "to brace up," in carpentry, by uniting pieces together, one piece to support the other,

Moiser et les entailler (*moiser*, to tie, *entailler*, to cut a joint)—pron. mwah-zay eh laize ahn-tahl-yea; Ger. *zwei Balken* or *Bandstücke überschneiden*—pron. tsvy bahl-kenn, bant-stuek-eh ueh-ber-shuide-enn. Syn. Fr. for "bracing," *Entretouement*—pron. ahn-ter-twahze-maahn; also *Moisement et entaillement*—pron. mwahze-mahn ay ahn-tahl-mahn; Ger. *Holz- or Balkenbindung*; also *Balkengürtel* (*Gurt*, a girt or girdle, a band or tie).

Bracket (see text). *Der.* Our word is from the Latin *brachium*, an arm. A body projecting from and connected with the surface of a wall, the office of which is to support or carry another body, is so called. Syn. Fr. *Tasseau* (a ledge)—pron. tah-soh; also, and more commonly, *Console*—pron. aohn- or kohng-soul or sol; Ger. *die Console*—pron. dee konn-soh-leh; also *der Träger* (*tragen*, to bear, to support, to carry)—pron. trah-eek-gerr.

Brad (see text). *Der.* The word is from the Danish *bradd*, or the Icelandic *broddr*, from *brydda*, to prick or sting. Syn. Fr. *Clou à lattes* (lath nail)—pron. klooh' ah latt; also *Clou sans tête* (headless nail)—pron. sahngze or sahng tett; Ger. *Nagel ohne Kopf* (headless nail)—pron. nah-gell oh-neh kopf, or *Lattennagel* (lath nail); also *Spikernagel* (*Spicker*, a tack)—pron. speeh-kare-nah-gell.

Branch, in Construction. A part of a small body or a structure which leads to or proceeds from another and larger body to which it is connected. *Der.* The word is from the French *branche*, an arm, a branch, or the Northern word *brank*, an arm. Syn. Fr. *Sous-division*—pron. sooh-dee-vee-zee-yohng or -ohng; Ger. *Unterabtheilung*. Syn. Fr. for "branching (off)," *Embranchement*—pron. ahm-brahngsh-mahng; Ger. *Zweige*—pron. tzvi-geh. Syn. Fr. for "main branch" in pipe work, *Maitresse tuyau*; Ger. *Rohrehauptzweig*. Syn. Fr. for "branch wood," branching or knotting, each branch when cut off leaving a knot or part different in grain from the other, *Ecoté*—pron. eh-koh-tay (*Ecot* [eh-koh], a stump); also *Ecluvetté*—pron. eh-kloo-vett-eh.

Brass (see text). *Der.* The word is almost the Old English name for *bras*, a yellow metal, an alloy of copper and zinc. Syn. Fr. for "brass plate or sheet brass," *Laiton à planche* or *à feuillée*—pron. lay-tohn plahnsh, feuhl-yay; Ger. *Latunplatte*—pron. lah-toon-plaht-teh. Syn. Fr. for "brass wire," *Fil de laiton*—pron. feel; Ger. *Laitun- or Messingdraht*. Syn. Fr. for "brass founder," *Fondeur de laiton*—pron. fohn-deuhr, or *de cuivre jaune*—literally "yellow copper"—pron. kweeh-verr jhone; Ger. *Latunmacher*—pron. lah-toon-maw-kerr; also *Messing- or Latungießer* (from *giessen*, to cast, to flow)—pron. gees- (g hard) enn.

Brazier. *Der.* From the French *brasse*, live coal, clear burning embers. 'Our word brazier comes from this—a grate or open isolated fire-bucket inclosing clear burning fuel. Syn. Fr. for "brazier," *Dinandier*, a worker in brass (*dinanderie* [deen-ahn-derr-ee], brass ware); also *Brazier* (from *braser*, to braise)—pron. brah-zay; Ger. *Latun- or Messinghändler* (brass dealer)—pron. lah-toon- or mess-ing-hend-lerr.

Breadth, in Construction. A term synonymous with "width"—i.e. the distance or measurement from one side of a body to another; as length "indicates" the measurement from one end to the other of the body, and "thickness" (synonymous with depth) indicates the measurement or distance from one surface, as top, to the other or bottom surface. These three terms are those which indicate the peculiarities of measurement of a "solid body" as distinguished from a "surface" or "area," which has only length and breadth or width. *Der.* The term breadth comes from the Old English *bradd* or *brad*, distance from side to side. Syn. Fr. for "breadth," *Largeur*—pron. lahr-jeuhr; Ger. *Breite*—pron. bright-eh. Syn. Fr. for "broad," *Large*—pron. larj, or *Etendu*—pron. eh-tahn-duuh (from *étendre* [eh-tahn-derr], to extend); also *Vaste*—pron. vahst; Ger. *Breit*—pron. bright; *Weit*—pron. vite. Syn. Fr. for "to broaden," *Elargir*—pron. eh-lahr-jheer; Ger. *Breit machen*. Syn. Fr. for "broadwise," in *Largeur*; Ger. in *der Breite*.

Break, To. A term in one way or another much used in construction. *Der.* From the Old English *brikan*, to divide in pieces forcibly; generally the use of some heavy instrument is involved in the operation. Syn. Fr. *Briser*—pron. breeze-eh; also *Rompre*—pron. rohm-perr, or *Crever*—pron. kruh-vay (this term is used more in the sense of bursting open than of breaking up); also *Eclater*—pron. eh-klah-tay (in the sense of shivering, as of a stone); Ger. *Brechen*—pron. brech-enn, or *Zerbrechen*—pron. tserr, or *Aufbrechen*—pron. owff (in the sense of bursting open). Syn. Fr. for "break" (in the sense of an interruption, as a break in a wall by a door-opening or the like), *Ouverture*—pron. ooh-vair-tuuh, or *Jour*—pron. jhoor; also *Défait de la ligne*—pron. deff-oh deh lah leeng; Ger. *Unterbrechung*. Syn. Fr. for "broken," *Brisé*—pron. breezh-zay; also *Rompu*—pron. rohm- or rhong-puuh; Ger. *Gebrochen*—pron. geh-broch-enn. Syn. Fr. for "broken stones," as those used in road and footpath making, *Pierraille*—pron. peeair-ahyl; Ger. *gebrochene Steine*, or *Steinschlag* (from *schlagen*, to beat or strike, *Schlägel*, a mallet, a beater). Syn. Fr. for "broken roof"—that is, a roof the otherwise even surface of which is broken or interrupted by some feature of

construction, *Comble brisé*; Ger. *gebrochenes Dach*—pron. geh-broch-en-ess dach. Syn. Fr. for "breaking," as breaking up of old framing, brickwork, etc., *Brisage, Fracture*—pron. breeh-zahj, frakk-tuehr; Ger. *das Brechen*. Syn. Fr. for "breaking of the grain or the bed of stone"—that is, where it is interrupted, *Délit*—pron. day-leeh, or *Faux lit* (lit, a bed)—pron. foh leeh.

Breast of a Chimney, in Brickwork or Masonry. Der. The word breast is from the Old English *breost*, or from the German *Brust*, and this from *brüsten*, to well, to be puffed up. The breast of a chimney is that part above the fireplace opening. Syn. Fr. *Mur en face de la cheminée*—pron. muehr ahn fahss deuh lah cheu-mee-nay; also *Mur contre-cœur de la cheminée*, middle wall of chimney—pron. kohn-terr keuhr; Ger. *Kaminmauer* or *Feuermauer*. Syn. Fr. for "breast-rail," as the rail of a balcony, *Traverse d'appui*—pron. trah-raise dah-pwee, or *Petite poutre d'appui*—pron. pett-eet pooh-terr dah-pweeh; Ger. *kleiner Brustbalken* or *Brustriegel* (Riegel, a bar). "Breastsummer" or "Brestsummer," or "Bressummer" (see text). The true term is the first named of these. Syn. Fr. for "top or upper beam," *Poutre supérieure*—pron. pooh-terr sueh-pair-ee-euhr, or *Traverse supérieure*—pron. trah-raise; also *Entretoise*—pron. ahng-terr-twahze; also *Sommier*—pron. somm-yay (from *sommet* [soh-may]), the top, or from *somme* [sohmm], sleep, as the "sleeper" of a railway; Ger. *Oberbalken*—pron. oh-berr-bahl-kenn, or *Quer Oberbalken*, a cross or cross-beam—pron. quairr, or *Oberrahmen* (Rahmen, a frame, a border, edge)—pron. rah-menn. Syn. Fr. for "breast wall," *Mur en hauteur de poitrine*—pron. muehr ahn hoh-teuhr deuh pwah-treen, or *Mur du cœur*—pron. dueh keuhr; Ger. *Brustmauer*.

Brick (see text), **To.** Syn. Fr. *Bâtir de briques*—pron. bah-teer day breek; Ger. *Ziegelbauen*—pron. tzeeh-gale-bow-enn. Syn. Fr. for "arch bricks"—that is, wedge-shaped to suit the corner of the arch, the extrados ends being thicker and broader than the intrados ends—*Brique à voûte* or *en arc*; Ger. *Bogenziegel* or *Gewabziegel*. Syn. Fr. for "fire bricks," *Briques réfractaire*—pron. ray-frakk-tare; Ger. *Feuerfestziegel*—pron. fuuh-air-fess-tay-tzee-gell. Syn. Fr. for "brick facing to a stone wall," *Parement de briques pour une mur de pierre*; Ger. *Ziegelblend für eine Steinmauer*. Syn. Fr. for "brick-nogging"—that is, building in the spaces of a timber framework, as that of a partition, with bricks on edge, to make the work fireproof or stronger than a hollow quartering partition of wood—*Briques posées sur les panneaux d'une paroi* or *d'une cloison*; Ger. *Ziegelwerk für eine Zwischenwand*. Syn. Fr. for "machine made or pressed

bricks," *Briques fabriquées à la machine*; Ger. *Machinenmachenziegel*, or simply *Machenziegel*. Syn. Fr. for "hand-made bricks," *Briques fabriquées à la main*—pron. fah-breek-ay; Ger. *Handmachenziegel*. Syn. Fr. for "best quality of bricks," *Briques du première qualité*—pron. premm-ee-air kah-lee-tay; Ger. *Bestenziegel*. Syn. Fr. for "brick built," *Bâti en briques*—pron. bah-tee ahng; Ger. *Ziegelbau*. Syn. Fr. for "brick earth or clay soil," suitable for the making of bricks, *Terre à briques*—pron. tair; Ger. *Ziegelerde* or *lehm*—pron. err-day, lame. Syn. Fr. for "burnt bricks" spoiled in the firing, damp, or kiln, *Brique cuite*—pron. qweet or kweet; Ger. *Gebrannte* or *Brandziegel*.

Bridge (see text). "Lattice bridge," in which the truss is made up of narrow bars of wood or iron crossing each other at certain angles, forming an open beam with netlike face, the bars being connected at each end with two longitudinal beams top and bottom and parallel to each other. Syn. Fr. *Pont à grille* (grating-like)—pron. pohnt-ah greel, or *Pont de grillage*—pron. greeh-lahj; also *Pont à l'Américaine* (American bridge, as the system was first introduced in America in the construction of wooden bridges, great strength with extreme lightness being obtained by its use)—pron. pohnt-ah lah-mair-ee-kane; also *Pont de grillage en bois* (wooden grillage bridge), or *Pont à lattes en bois*; Ger. *Amerikanische Brücke*—pron. ah-merr-ee-kah-nish-eh bruek-keh; also *Holzgitterbrücke* (Gitter, a trellis, lattice)—pron. gitter (g hard, as in gilt). Syn. Fr. for "bridge work," *Construction des ponts*, or *Pontage*; also *Ouvrage en construction des ponts*; Ger. *Brückenwerk* or *Brückenbau*.

Brilliant, in Colouring Work. A painted surface, as of a wall, on which the colour shines out clearly, as opposed to the converse condition called in technical language a "dead" or flat colour. Painted work which is varnished is usually "brilliant"—unvarnished work "dead," although the term brilliant is also applied to the character of the colour, some being naturally more brilliant than others, and this even in shades of the same colour. Der. The word brilliant comes from the French *briller* (bree-yea), to shine, to sparkle. Syn. Fr. for a "brilliant colour," *Couleur brillante*—pron. kooh-leuhr bree-yahnte; Ger. *Glänzende Farbe* (Glänzende, lustre, brightness [from *glänzen*, to shine, to glitter], *Farbe*, colour)—pron. glenhts-en-deh-fahr-beh.

Brim of a reservoir or tank. Der. Our word brim is from the Old English *brymm*, the edge or border. Syn. Fr. *Bord d'un réservoir*—pron. bore deuhn ray-zair-vwahr; Ger. *Wasserhalterrand* (from *rändern*, to border or edge).

Brittle Stones. The term is applied to any building material which is easily broken or snapped asunder. *Der.* From the Old English *breaten* or *brytian*, to break or snap asunder. *Syn. Fr.* for "brittle stone," *Pierre fragile*—pron. frah-jheel, or *Cassante*—pron. kahs-sahnte; also *Friable*—pron. free-ah-bell, or *Pourri*—pron. pooh-ree; *Ger. Faulstein*, or *Brockeliger*—pron. brokkel-ich-err; also *gebrechlicher Stein*—pron. geh-brech-lich-err stine.

Broad, in Measurement. A term used to indicate the extent of a surface or body from edge to edge of the sides; it is synonymous with width. *Der.* From the Old English *brad*. *Syn. Fr. Large*—pron. lahrj; also *Etendu*—pron. eh-tahn-duuh; *Ger. Breit*—pron. bright; also *Weit*—pron. vite. For "broad stone," a term sometimes used to denote the large squared stones used in superior or in ashlar work, *Syn. Fr. Pierre carrée*—pron. pee-airr kah-ray, or *Pierre équarrie*—pron. eh-karr-ee, or *Pierre de taille*—pron. taheel; *Ger. Quaderstein*—pron. quah-derr-stine.

Broken. A term sometimes used to denote a space or surface interrupted (see Break). *Syn. Fr. Brisé*—pron. bree-zay; also *Interrompu*—pron. aihn-terr-ohm-puuh; also *Entrecoupée*—pron. ahn-terr-kooh-pay; *Ger. Gebrochen*—pron. geh-broch-enn.

Brush, Painter's. *Der.* Our word, according to some authorities, is from the Old German *brusta*, according to others from the Italian *brusca*; by others it is said to come from the French *brosse*—all meaning an implement or appliance made of hog's or other bristles or stiff hairs or filaments fixed in a piece of wood, and used to remove dust, etc., from surfaces, or conversely to put on to them or spread over them some pasty-like or glutinous substance, as paint or the like. *Syn. Fr.* for "painter's brush," *Brosse à peindre*—pron. bross ah paihn-derr; *Ger. Grobmalerpinsel*—pron. groh-ber-mah-lerr-pin-zel. *Syn. Fr.* for "paperhanger's brush," *Goupillon*—pron. gooh-pee-yon; *Ger. Bürste*—pron. buerr-steh. For "brushwood"—i.e. the small wood, as twigs of trees and the branches of young trees or shrubs—so called from the fact that the more slender and tougher twigs, such as those of the broom (a synonym for brush so made) were used to make brushes to do the more rough work of cleaning, such as streets, footpaths, stable floors, and the like—*Syn. Fr. Bois de brosse*—pron. bwah deh bross; *Ger. Bürstenholz*—pron. buerr-sten-hollts.

Buckled Plates, in Metal Work. A term used to indicate that in sheet or plate the surface has got bent, arched up, or made wavy, so that it will not lie flat. A plate "buckled" up is very difficult to be made flat again, as the metal gets a bias,

which is apt to become permanent. Advantage, however, of this peculiarity was taken by the late Robert Mallett, the well-known engineer and scientist, in making a plate which, specially arched up and known as "buckled plate," gave exceedingly strong plates used in forming floors—bridge floors, and the like. *Der.* The term buckled comes from "buckle," and this from the French *boucle*, and this again from the verb *boucler*, to curl, to buckle. The origin of the French term is the Latin *buccula*, and this from *bucca*, a cheek, a rounded surface. *Syn. Ger. Buckel*; also *Schnalle*—pron. shall-leh. *Syn. Fr.* for "buckled plates," *Feuille* or *Fer de tôle bouclée*—pron. feuhill, fairr deh tole booh-klay; *Ger. Eisenschwarzblech aufschnallen* or *-tafel buckeln*.

Buhlwork, in Cabinet Making. Articles of furniture, as ladies' work-tables and the like, in which patterns are shown in inlaid materials, imitation pearls, and coloured woods; so called from the name of a workman famous for his work of this kind. *Syn. Fr. Boule*—pron. boohl; *Ger. Einlagen*—pron. ine-lah-genn. *Syn. Fr.* for "Buhl furniture," *Meubles* or *Articles de boule*—pron. meuh-bel, ahr-tee-kell deh boohl; *Ger. eingelegte Möbel*—pron. ine-geh-layg-teh moeh-bell.

Building (see text). An edifice or structure is so called in ordinary language. *Syn. Fr. Bâtiment*—pron. bah-tee-mahn, or *Edifice*—pron. aid-ee-feece; also *Construction*—pron. konn-struek-tsee-on, or *Fabrique*—pron. fah-breek; *Ger. Haus*—pron. howss, or *Bauwerk*—pron. bow- (ow as in now) vairrk; also *Bau*—pron. bow, or *Gebäude*—pron. geh-boy-deh. *Syn. Fr.* for "building site or ground," *Terrain pour bâtir* or *construction*—pron. terr-ahng poohr bah-teer; also *Lieu* (place) *de bau*—pron. luh; *Ger. Baustelle* or *-platz*—pron. bow-still-eh, platts. *Syn. Fr.* for "building contract," *Marché d'ouvrage*—pron. marr-shay doohve-rajh; also *Contrat pour le bâtiment*—pron. cohng-trah poohr leh baw-tee-mahng; *Ger. Baucontract*—pron. baw-kohn-trakt. *Syn. Fr.* for "building plant, implements," etc. *Equipage de construction*—pron. aik-wee-pajh; *Ger. Baugerüth*—pron. bow-gay-rah-eeth. *Syn. Fr.* for "building materials," *Matériaux de bâtiment construction*—pron. mah-teer-ee-oh; *Ger. Baumaterialien*—pron. bow-mah-teer-ee-ahll-yenn.

Bulging, in Construction. *Der.* Our word bulge is from the Old English *balg*, a round swelling out or protuberant part of a body. Walls bulge out when the superincumbent pressure is too great for the work below to withstand. *Syn. Fr.* for "to bulge," *Bomber*—pron. bohm-bay; also *Faire ventre* (literally, "to make a belly," or swell out, to belly out)—pron. fairr vahn-terr; *Ger. Bauschen*—pron. bow-shenn (ow as in now),

or *Bauchen*—pron. bow-kenn. Syn. Fr. for “bulging,” *Bombage*—pron. boh-m-bahj; Ger. *Bauchung*—pron. bowch-oong. Syn. Fr. for “bulged work,” *Construction bombée*; also *Renflé* (from *renfler*, to swell)—pron. rahn-flay; Ger. *Ausgebaucht*, or *Bauchige*—pron. bowch-ee-geh.

Bulk. A term in *Materials* to indicate magnitude or quantity—a large bulk. *Der.* The word is from the Icelandic *bulka*, to swell. When a building is nearly completed, the phrase used is the “bulk of the building is completed.” Syn. Fr. *Parte saillante d'une bâtiment* (the salient or most striking part); Ger. *die grossen Theil von Gebaude*; also *vorspringende Theil* (fore-springing part, what strikes the eye).

Bundle (of laths). *Der.* The word bundle comes from the Old English *byndel*, from *bindan*, to bind—a number of separate and generally comparatively small things bound or tied together. Syn. Fr. for “bundle of laths,” *Faisceau des lattes*—pron. fah-soh day laht; Ger. *Bündel von Latte*—pron. buuh-een-dale fon latt-eh.

Burden (of a beam). *Der.* Our word beam comes from the Old English *byrdhen*, from *beran* or *barian*, to bear, to carry. The burden of a beam is the pressure or weight of materials to which it is subjected, bringing into operation certain strains which tend to weaken, and if too great to break or rupture it. Syn. Fr. *Fardeau d'une poutre*—pron. fahr-doh duuhn pooh-terr; also *Charge*—pron. sharjh, or *Faix*—pron. fay; Ger. *Balkenladung* or *-last*—pron. bahl-kenn-lah-duuhng.

Bureau, in *Cabinet Making*. A piece of furniture fitted up at its upper part with a folding-down front, which serves when down as a writing-table or desk; and in the inner part, thus exposed, with a series of drawers and pigeon-holes to contain writing materials and documents. The lower part may either be purely ornamental or may be fitted up with drawers. Syn. Fr. *Cabinet d'écriture* (writing cabinet)—pron. kah-bee-nay day-kree-tuehr, or simply *Cabinet*; Ger. *Schreibeschrank*, or *pult*—i.e. writing cupboard (*Schreiben*, to write, *Schrank*, a press, cupboard)—pron. shrie-beh-shrank; also *Schreibtisch* (*Tisch*, a table)—pron. tish. The word “bureau” is, however, used on the Continent, especially in France, as synonymous with our “office.” In France and in Germany the term is the same—pron. buh-roh.

Burner, Gas. *Der.* The word burn, to consume, as an inflammable, is from the Old English *byrnan* or the German *brennan*. Syn. Fr. *Bec* or *Bruleur à gaz*—pron. bekk, bruh-luuh ah gahz; Ger. *Gazbrenner*—pron. gazze-brenn-err. Syn. Fr. for “sun burner,” *Bec à soleil*—pron. soh-lile or soh-lay-eel; Ger. *Sonnenbrenner*. Syn. Fr. for “lime to burn,” calcining limestone to

prepare it for the making of mortar, *Calciner le chaux*—pron. kahl-see-nay leh show; for “lime burning,” *Calcinée du chaux*; Ger. *Kalksteinbrennen* or *-brennung*. Syn. Fr. for “to burn bricks,” *Cuire les briques*—pron. kwheer lay breeks; Ger. *brennen die Ziegelsteiner*.

Burnish, To. *Der.* Our word comes from the French, and denotes the process of rubbing by an implement of wood or of metal the surface of metal, so as to cause it to be not only smooth but resplendent or shining. Syn. Fr. *Brunir*—pron. bruh-neer, or *Polir*—pron. poh-leer; also *Aviver*—literally “to make lively”—pron. ah-veeve-eh; Ger. *Glanzen*—pron. glahn-tzenn; also *Glätten* (to make smooth)—pron. gla-et-enn. Syn. Fr. for “burnishing,” *Brunissage*, or *Brunissure*—pron. bruh-neesuhr; Ger. *Glanzarbeit* or *Glätterbeit*; also *Poliren*.

Burst Pipe, in *Sewerage* or *Plumbing*. *Der.* Our word burst comes from the Old English *byrstan*, to rend or tear open. Syn. Fr. for “burst pipe,” *Tuyau crévé*—pron. twee-oh kray-vay, or *élané*—pron. eh-lahng-say, or *brisé*—pron. breeze-eh; Ger. *Rohrbruch*—pron. roh-ray-bruuhk; also *Rohrbersten* or *-dannbruch*.

Bust, in *Sculptor's Work*, for decoration of buildings. A sculptured form of the human figure from the head downwards to the waist inclusive—not a full-length figure. *Der.* Our word comes almost without change from the French *buste*, and this from the Latin *bustum*. Syn. Fr. *Buste*—pron. buhst; Ger. *Bruststück*—literally “breast piece”—pron. bruuh-s-tuuh-eek; also *Buste*—pron. buhst.

Button of a window or of a door. *Der.* Our word button comes from the French *bouton* (booh-ton), and this from the French word *bout* (booh), the end or extremity. Syn. Fr. for “button of a door or window,” the rounded part taken hold of in shutting or opening, *Bouton d'une porte* or *fenêtre*; also *Tourniquet*—pron. toohr-nee-kay; Ger. *Thürknoopf* or *Fensterknopf*.

Byre, in *Farm Building* or *Architecture*. The building or apartment in which cows are kept. *Der.* The term, which is chiefly used in Scotland and the North of England, for which the English equivalent is cowhouse or shippon, apparently comes from the Old English *bye*, a house or dwelling. Syn. Fr. *Stalle pour les vaches*—pron. stahl poorr ley vahsh; Ger. *Kuhstall*—pron. kooch-stahl.

Calcining. *Der.* Our word calcine comes from the Italian *calcinare*, and this from the Latin *calx*, lime, though originally calcining was the application of heat to or the burning of limestone in order to desiccate it and render it friable, easily broken up,

and fractured. Its meaning is now extended to other substances, as iron ore. The synonymous term with us is "roasting." This last term comes from the Old English *hrostan*, or more directly from the German *rösten* (roh-est-enn), to fry, to submit to the action of fire on a grating. Syn. Fr. for "calcining," *Calcination*—pron. kahl-see-najhe, or *Calcination*—pron. kahl-see-nah-see-ong; also *Grillage* (this last term is more correctly the synonym for "roasting")—pron. greeh-lajh; Ger. *Kalcinieren*—pron. kahl-see-nec-reenn; also *Rösten*—pron. ruuh-eese-tenn.

Calibre of a pipe. A synonym for "diameter" or "bore." Our word has a somewhat curious derivation, or rather its proper meaning is the weight of something thrown or projected, as a cannon ball, and this from the Latin phrase or question, *quâ libra*, "of what pound?"—that is, of what weight; and as a cannon ball—of the material cast iron, universally used before the modern projectiles came into use—of a given weight gave a certain diameter, that became the measure of the bore of the cannon in which it was to be used; hence the term calibre has become almost exclusively used as denoting measurement rather than weight—the only exception, perhaps, being the term as applied to indicate a man possessed of great mental powers—great calibre, a man of weight. Syn. Fr. (identically the same word as ours)—pron. kah-lee-berr; Ger. *Kaliber*—pron. kah-lee-berr; also *Durchmesser*—literally "through measure"—pron. doorsh-mess-er.

Callipers, in Tools. An instrument by which the diameter of circular objects, as a rod or bar of iron, a pipe,—of spherical, as a ball,—and of the bore or internal diameter of circular holes, is measured. Der. Our word is evidently a corruption of *calibre*; for, as this is the measure of the bore, say of a cannon, so callipers, or *calibers*, is the instrument by which that measurement is taken. Callipers are made of two pieces of flat steel in the form somewhat like a half or young moon. The pieces are of unequal width, the narrow ends being cut off flat to bear against the surface of the article to be measured; the broad ends jointed together tightly, so that the narrow ends can be separated from each other or brought close together as required. Syn. Fr. *Compas-calibre*, or *Compas courbée*; Ger. *Dickcirkel*, thick circle. Syn. Fr. for "calliper to take inside as well as outside measurements," *Maitre compas-calibre*; Ger. *Hohl-* or *Dick-*kaliber.

Candelabrum, in Lighting of Apartments. The appliance by which a number of candle-holders were clustered together, hung in the centre of a room, to distribute the light throughout it, or branches each

supporting a candle-holder fixed to and projecting from the walls. Candelabra are still used; but for candle-holders gas burners or jets, or arc lights in electric lighting, are substituted. Der. The word candle comes from the Old English *candel*, a cylinder of tallow or wax with a wick in its centre, or from the Latin *candela*, and this from the verb *candere*, to shine, to glisten. Syn. Fr. for "candelabrum," *Candelabre*—pron. kahn-deh-lah-berr; Ger. *Licht-* or *Flammenkorb*.

Cap. A term frequently used in building. Der. From the Old English *cappe*, to cover. It is in construction often used as synonymous with top or upper part. Syn. Fr. *Casquette*—pron. kahss-kett; also *Chapeau*—pron. shahp-oh; Ger. *Kappe*—pron. kapp-eh.

Capital, Clustered. Syn. Fr. *Chapiteau en grappes* (*Grappe*, a bunch)—pron. shah-pee-toh ahn grahp; Ger. *Bündelkapital*—pron. boon-dell-kah-pee-tahl.

Carpet, in Furniture of a House. The woollen cloth or fabric used to cover the flooring boards. Der. Curiously enough, from the Latin *carpeta*, a woollen fabric, and this from *carpere*, to pick wool. Syn. Fr. *Tapis*—pron. tah-pee. This is derived most probably from *tapisserie*, tapestry. The use of woollen fabrics or large cloths for the covering of wall surfaces was long established before any other covering for floors save rushes or straw was thought of. It was a natural transition to take the fabrics made for walls and use them to cover the floors. The use was probably suggested from the method of examining wall tapestry when made by spreading it out on the floor—an easier process than hanging it up on the walls. The word *tapis* may also have been taken from *se tapir*, to stretch, to lie squat or level on the floor or ground. Syn. Ger. *Teppich*—pron. tepp-eehk.

Carton Pierre, in Materials. A substance composed of paper and plaster of Paris used in fancy ornaments for interior decoration. The phrase means literally "stone pasteboard." Syn. Fr. for *Carton* (pasteboard) *pierre*—pron. kahr-tohng pee-air, *Papier ivoire* (ivory paper)—pron. pah-pee-eh eeve-whawr; Ger. *Steinpergament* (stone parchment), or *Steinpappe* (stone pasteboard).

Casing, in Building. Der. Our word comes from the French *caisse*, a box or sheath to enclose an object or objects in, and remotely from the Latin *capsa*, a chest. Syn. Fr. for "casing"—i.e. inclosing a body—*Caissage*—pron. kah-yeese, -eese, or -ajhe; also *Garnissage*—pron. garr-neesajhe, or *Cantalabre*—pron. kahn-tah-lah-berr; Ger. *Verkleidung*—pron. fare-klide-oohng; also *Einfassung*—pron. ine-fah-soohng.

Castor, in Cabinet Making. A small roller generally of brass, the axle of which revolves in a swivel bearing, so that it will turn in any direction, and secured to the under side of a capping or mounting piece or hollow part into which the lower ends, as of table legs, are screwed; or the roller is mounted to a solid brass plate screwed to the base of a heavy piece of furniture. The object of the castor or caster is to facilitate the easy removal of heavy objects from place to place, the weight being supported by and running on the rollers, as small wheels. *Der.* The name is probably from the Danish *kaste*, to project, to hurl—caster in this view being more correct than castor. Syn. Fr. *Roulette*—pron. rooh-let; Ger. *Rölle*—pron. roh-eel-eh, or *Röllchen*—pron. roh-eel-kenn.

Causeway. A road raised above the level of low-lying land, usually or frequently covered with water. As roads of this kind were paved with squared blocks of stone forming the road surface, the term became applied to any road or street so paved. Syn. Fr. *Chaussée*—this, corrupted probably in spelling and pronunciation, gave our word *cause* (way or road)—pron. show-say, or *Digne* (a dam, a bank, or embankment) *pour une chaussée*; also *Servant au passage*; Ger. *Hochweg* (highway or road), or *Dammweg*—pron. vaig.

Cellar, in House Arrangement. An apartment wholly or partially below the level of the land or ground on which the house is built. It is usually appropriated to the storing up of provisions, coals, etc. Syn. Fr. *Cave*—pron. kahv; Ger. *Keller*—pron. kell-err.

Cement (see text). Syn. Fr. for "quick-setting or hardening cement," *Ciment à prise rapide or prompt*—pron. see-mahn-tah preeze rah-peed, prompt; Ger. *Schnellbindender Cement*—pron. shnell-been-end-err tsay-ment. Syn. Fr. for "slow-setting cement," *Ciment à prise lente*—pron. lahnt; Ger. *Langsambindender Cement*.

Centre (see text). *Der.* Our word comes from the Latin *centrum*, and this from the Greek *kentron*, a sharp point, and this again from *kentein*, to prick with a sharp point, just as one would mark the precise middle of a space, as of a circle, with a sharp point of pencil or a compass leg. Syn. Fr. for "to centre," *Centrirer*—pron. sahng-tee-ray (*Centre* is the French for "centre," or *Center*—pron. sahng-terr); Ger. *Centriren*—pron. senn-treer-enn; also *Mittelpunkt marken*, to mark the middle point (*Mittelpunkt* is "centre")—pron. mee-tell-puuhnk. Syn. Fr. for "centre of equilibrium," the point of a framework round which all the parts balance each other, as it were—the centre point in which all opposing forces meet with their antagonistic and equal

pressures or forces, *Centre d'équilibre*—pron. sahng-terr dake-wheel-lee-berr; Ger. *das Gleichgewichtmittelpunkte*—pron. glike-gay-veeght-eh-mee-tell-puuhnk-eh.

Chair, in Cabinet Making. A movable seat. *Der.* The name comes from the Old Norman French *cadriere*, and this from the Latin *cathedra*, the seat in which a judge sat. Syn. Fr. *Chaise*—pron. shaize; Ger. *Sessel*; also *Stuhl*. Syn. Fr. for "arm-chair," *Fauteuil*—pron. foh-tuuh-eel; Ger. *Armssessel*.

Channel (see text). Syn. Fr. for "channels or flutes of a column," *Ramure de colonne*—pron. ray-muuh deh coal-on; Ger. *Kannelung von Säule*—pron. sow-eel-lay.

Chisel, Joiner's (see text). Syn. Fr. *Ciseau à ébancher or menuiserie or biseau*—pron. seeze-oh ah eh-bohsh-eh, may-nweeze-err-ee or -ray, bee-soh; Ger. *Schreinermeissel* (*Schreiner*, a joiner)—pron. shrine-err-mize-ell. Syn. Fr. for "chisel for mason work," *Poinçon*—pron. pwahng-sohng; also *Ciseau pour maçonnerie*—pron. mah-sohng-err-ee, or sohng- or sohn-ree; Ger. *Steinmeissel* (stone chisel). Syn. Fr. for "chipping (metal) chisel," *Burin*—pron. booh-rahn or -rahng; also *Ciseau pour le métal poid*; Ger. *Metallmeissel*. Syn. Fr. for "carving chisel," *Fermeir*—pron. ferr-mwahr (our word "firmer," a certain kind of paring chisel, comes from this) also *Ebauchoir*—pron. eh-boh-shwahr; Ger. *Schnitzenmeissel*—pron. shneet-tzenn. Syn. Fr. for "mortising chisel," *Ciseau à bec d'âne*—pron. ah bekk dahn; Ger. *Raummeissel*—pron. rouhm (ou as in now); also *Locheisen*—pron. lökk-ize-enn. Syn. Fr. for "round-edged chisel," commonly called a "gouge," *Ciseau à rond nez*—pron. rohngd naize or naih; Ger. *Rundeckenmeissel*—pron. roohnt-ekk-enn.

Cinder Walk or Footpath, in which the top covering is composed of cinders. The lower stratum or bottoming in this case is best made with clinker (which see). *Der.* The word cinder comes from the Old English *sinder*, and this from *syndrian*, to separate or detach; or from the French *endre*, and this from the Latin *cinis*, ashes. Syn. Fr. for "cinder footpath," *Sentier couvert des cendres or cokes*—pron. sahng-tee-eh kooch-vair day sahng-derr, coeks; Ger. *Fuswege mit Kohlenasches* (coal ashes)—pron. foose-vague-eh meet koh-lenn-ash-aize.

Clamp, Brickmaking in (see text). Clamping, which is one of the two chief methods of burning or firing bricks—the other being kiln firing—consists in building up the partially dried bricks in rows, so as to form when completed large blocks. Coal slack or dross is disposed throughout the mass, and a species of furnace is made at various points of the length of the block,

near the ground level. These pass through the block from side to side, and the draught is regulated by blocking wholly or partially up one or more of the furnace orifices. The outside of the block is made of old or burnt bricks, only the interior being filled with those which are to be fired. Syn. Fr. for "brick clamping," *Assemblage des briques en haies* (*haie*, a row, a hedgerow); Ger. *Ziegelstein brennen im Meilersätzen* (*Meiler*, a heap)—pron. mile-err-satt-tzenn.

Clapper (of a Bell). The hammer or part with which the bell is struck. Der. Our word comes from the Old English *clappan*, or the German *klappen*, to strike one body against another. Syn. Fr. *Battant d'une cloche*—pron. bah-tahng duuhn klosh; Ger. *Glockeklappel*.

Claw Hammer, in Tools. A hammer in which the tail part, opposite to the head or striking part, is, in place of being solid as usual, split up, so to say, into two parts by a conical part—narrow and inwards. Its use is to withdraw or pull out nails. The nail is passed between the sides of the split or opening, the head resting on the claw, while the handle is used as a lever to give the necessary drawing-out power to the hammer tail. Der. Our word claw is from the German *klauen*, to clutch or claw, or it may be from the Latin *claudere*, to close or inclose (our word clause, of a specification for example, comes from this), as the claws of a bird or animal inclose an object they grasp or seize hold of. Syn. Fr. *Marteau à dents* (toothed hammer)—pron. mahr-toh ah dahngtz, or *Marteau avec panne* (a tail) *fendue* (split or cleft tail)—pron. ah-vekk pann fahng-duuh; Ger. *Split- or Klauenhammer*—pron. spleet, klow-enn.

Clinkers (see Cinder Path). The hard vitrified glazed masses, one of the waste or residue products of coal fired furnaces. Syn. Fr. *Cendres* or *Cokes vitrées*; Ger. *Hartegebrannteasches* (for derivation see Clinker in text).

Clothing, in Construction. A term sometimes used as synonymous with covering, as clothing a brick or stone wall surface with wood. Syn. Fr. *Drapée avec bois*; also *Soufflage*; Ger. *Holzbekleidung*, or simply *Bekleidung*. Der. The word is from the Old English *cladjhon*, to cover, to conceal, or from the German *kleiden*.

Cloudy, in Colouring or Painting. A term used to indicate that the paint is laid unevenly on, striated or massed in different tones. Syn. Fr. *Teint inégalement*—pron. tehng-teen-eh-gall-mahng; Ger. *Farbewolkig* or *dunkel*—pron. vohl-keeg, duuhn-kale.

Compression. One of the pressures or forces to which materials are subjected in construction. It is the opposite of tension, which tends to draw the particles asunder: compression squeezes or crushes them

together. Der. Our word compression comes from the Latin *con*, and *premere*, to press. Syn. Fr. *Compression*—pron. kohm-pray-see-ohn, or *Pression*—pron. pray- or press-ee-ohn or -ohng; Ger. *der Druck*—pron. droohk; also *Zusammendruckung*.

Concavity. A hollowed-out place or part of an object, as the concavity of a vault. Syn. Fr. *Concavité*—pron. kohn- or kohng-kah-vee-teh; Ger. *Concavität*; also *Hohlründe*. Syn. Fr. for "concavity of a vault," *Concavité d'une voûte*; Ger. *Bogenründung*.

Conductor, Lightning. The arrangement of copper wires and plate connected with a building or structure, as a chimney stalk, in order to attract the lightning and lead it to the ground or damp soil, where it forms part of the earth circuit and becomes harmless so far as the building is concerned. Der. Our word conductor comes from the Latin *con*, and *ducere*, to lead. Syn. Fr. *Conducteur électrique*—pron. kohng-duuhk-tuuh ale-ake-treek; Ger. *Elektrische-leiter* (*leiten*, to lead)—pron. ell-ekk-treesh-ee-lite- or -light-err.

Consolidate. A term frequently used in connection with foundation and earth-work. Der. Our word is from the Latin *con*, and *solidare*, to make compact, dense, solid. Syn. Fr. for "to consolidate the soil," *Consolider le sol* or *terrain*—pron. kohn-so-leed-eh leh soll, tairr-aihn; Ger. *Dicht machen*—pron. dicht mach-en; also *die Erde verbinden*. Syn. Fr. for "consolidation," *Consolidation*—pron. kohn-soh-lee-dah-seon; also *Rechargement*—pron. ray-sharjhe-mahn; Ger. *Verdichtung*—pron. ferr-dicht-ohng, or *Verbindung*—pron. ferr-bin-doeng.

Contour. A term often used in connection with curved surfaces, as of mouldings, or with the land or ground, denoting the curved line or curve which the surface assumes. Der. Our word is from the French *contourner*, to turn with a bend. Syn. Fr. for "to give the contour or proper curve," *Contourner*—pron. kohn-toohr-nay; Ger. *Runden*, or *Abrunden*.

Convexity. The rounded spherical-shaped part of a body is so called. It is the opposite or converse of concavity (which see)—a concave body receding from, a convex body approaching to the eye. Der. Our word convex comes from the Latin *convexus*, and this from *convhere* (*con*, and *vehere*, to draw together)—which drawing together of the particles of a body towards some central point produces a projection or swelling or bulging out, just as spreading the particles outwards tends to produce a concavity or hollow. This bulging out of a convex body gives the origin of one of the French synonyms *Bombure*—pron. bohmbuuh (from *bomber* [bohmbay], to swell,

to bulge out), or *Bombement*—pron. boh-mahng or -mahn; also, following the Latin word, *Convexité*—pron. cohng- or coh-vexx-ee-tay; Syn. Ger. *Bauchwerden* (from *bauch* [bowk], ow as in now), to become bellied or bulged out—pron. bowk-vairdenn; also *Anylanchung* or *Convexformen*—pron. conn-vaix-eh-forr-may; also *Schweifang* (from *schweifen* [shwife-enn], to curve out)—pron. shwife-oong.

Corbelled Work. Syn. Fr. *Ouvrage en saïlle*—pron. ooh-vrahj ahn saheel, or *Ouvrage par encorbellement*; Ger. *Kragsteinwerk*.

Corbelling (see text). Syn. Fr. *Encorbellement*—pron. ahng-korr-bell-mahng; Ger. *Vorkragung*—pron. forr-krah-goohng; or *Vorkragstein tragerung*; also *Vorbalken tragerung*.

Cork-tree Woodwork, in Garden Work, in which parts of cork trees are used to imitate rockeries and the like, in connection with which creeping plants, mosses, etc., are grown, and by which, with good taste, some beautiful effects are obtained. Syn. Fr. for "cork," *Liège*—pron. lee-age; Ger. *Korkholz* or simply *Kork*. Syn. Fr. for "cork-tree woodwork," *Ouvrage en bois de chêne* or *liège*—pron. oohve-rajhe ahng bwah day shenn, lee-azhe; Ger. *Korkbaumholzwerk*.

Cornice, in Masonry and Bricklaying. A moulded projection crowning the part to which it is attached; it is more or less ornate. *Der.* From the Greek *koronis* and Latin *corona*, the crown or finishing point of a body. Syn. Fr. *Corniche*—pron. korr-neesh; Ger. *Karniess*—pron. kahr-neece.

Corona, in Masonry. The lowest moulding in the cornice of an entablature. It is sometimes called the drip of the entablature, as it is throated to make the water drop clear of face of frieze. *Der.* From the Latin *corona*, a crown. Syn. Fr. *Larmier* (from *larme*, a tear or drop)—pron. lahr-mee-eh; Ger. *Kranzleiste* (literally "crown band," or channel)—pron. krahnts-lice-teh.

Corridor, in Architecture. A gallery or open passage; in domestic architecture it means a passage wider and longer than an ordinary passage, from which several apartments enter from one side or the other, or from both sides. *Der.* Latin *curro*, I run. Syn. Fr. *Corridor*—pron. kor-re-dorr; Ger. *Vorsaal* (literally "the hall before")—pron. fore-zahl.

Cottar, in Carpentry. A piece of flat iron shaped like an E, with projecting ends, used in conjunction with iron keys in securing the iron strap which binds the foot of a king post and the tie beam of a roof truss together. Syn. Fr. *Clavette*—pron. klah-vett; Ger. *der Keil*—pron. dairr kile (*Keil*, a wedge).

Counter, Shop, in Cabinet Making or Joinery. The long and narrow table on

which goods are displayed to customers, or in banks on which the money is laid down. *Der.* The term probably is given to it as the place upon which the money or change is counted out, or from the French synonym *comptoir*, from the verb *compter*, to count out—the table on which money is counted and paid, etc. This French word is the origin of our general word counter, which is used so largely as a prefix to other words, as counterbalance, etc. Syn. Fr. for "shop counter," *Comptoir* (the synonym also for counting-house)—pron. kohn-twah; also *La table pour une boutique, pour un magasin*; Ger. *Rechentisch* or *Rechenbrett*—literally "the reckoning-table or board," and this from *rechnen*, to count, to calculate on, as our own word which comes from this, reckon—pron. rech-en-tish, -brett.

Counterfort, in Masonry. A pier projecting at right angles from the face of a wall, to resist its outward pressure. *Der.* From the Latin *contra*, against, and *fortis*, strength. Syn. Fr. *Contrefort*—pron. kohn-treh-forr.

Counter-gauging, in Carpentry. The operation of transferring the breadth of a mortise in one piece to the position in which the tenon of the other piece of timber is to be cut, is so called.

Counterpoise, in Carpentry and Lifting Material, etc. A weight or mass of material to balance or counterbalance an opposing and given weight. *Der.* Latin *contra*, against, and *penso*, I weigh. Syn. Fr. *Contre-poise* (*contre*, against, *poids*, weight)—pron. kohn-treh-pwahse; Ger. *das Gegengewicht* (*gegen*, against, and *Gewicht*, weight)—pron. gay-genn-geh-vicht (see "ich" in Dissertation).

Countess, in Slating. One of the trade names of slates denoting a certain size, 20 by 10 in., 1000 weighing 38 cwt. first and 50 cwt. second quality.

Coupled Columns, in Architecture. Pillars or columns disposed in pairs, with bases touching or nearly so, a wide interval being made between the one set and the two next on each side.

Couples, in Carpentry. Rafters framed together in pairs or two at the desired angle of roof, and in which the feet of the rafters are prevented from spreading out by a longitudinal tie, termed a collar beam (which see).

Course, in Masonry and Bricklaying. Each layer of stones placed horizontally or on the level in a wall or building is so called. *Der.* From the Latin *cursus*, a length, and this from the verb *currere*, to run. Syn. Fr. *Cours*—pron. koor; Ger. *Laufband*—pron. lowf-bandt.

Course Joint. The joint in line between any two courses in a wall or building.

Cousinet, in Masonry. The impost of a

pier or column from which the stones of an arch spring. Syn. Fr. *Cousinet*—pron. kooch-zee-nay; Ger. *die Wulst*—pron. voolst.

Cove, in *Architecture*. A concave moulding. Der. Latin *cavum*, a hollow place. Syn. Fr. *Crique*—pron. kreek; Ger. *Obdach*—pron. ob-dach (see “ach” in Dissertation); *Bai*—pron. by.

Coved Ceiling, in *Plastering*. A ceiling partly or wholly concave or curved; usually the concavity or curve is confined to the sides and ends of the ceiling, the central part being flat, the walls joining this by curves more or less pronounced.

Cover—Covering. Terms often used in construction, indicating work to be done or done in various ways, and with various materials or substances, as to cover or the covering of a roof with boards, shingles, tiles, or slates—covering of a wall with whitewash, etc. Der. Our word cover comes from the French term *couvrir* (koochve-reer), and this from the Latin *con*, and *operire*, to cover or overspread. Syn. Fr. for “to cover,” *Couvrir*, or *Cower*—pron. kooch-vay; also *Cacher*, to hide, conceal—pron. kah-shay; also *Protéger*, to protect—pron. proh-tay-jhay; Ger. *Decken* (our word deck comes from this, to cover with something pretty)—pron. dekk-enn; also *Bedecken* and *Bemanteln*—pron. bay-man-telln. Syn. Fr. for “in the cover,” *Couverture*—pron. kooch-vairr-tuehr; also *Couvert*—pron. kooch-vairr; also *Envelope*—pron. ahn-vell-opp; Ger. *die Decke*; also *Deckmantel*.

Crab, in *Construction*. A small portable crane or winch, which can be removed with comparative ease from place to place, for hoisting or lifting heavy weights by means of guys and ropes or scaffolding. Syn. Fr. *Treuil*—pron. treu-eeh; Ger. *die Krüppel-spel*—pron. kruep-pel-spell-eh.

Cradling, in *Carpentry*. The timber framing to support the arched or curved paces of domes, groined vaults, culverts, etc.

Cramp, in *Joinery*. A small apparatus by which pressure is applied to flooring boards to force them into their places in close contact with each other. Syn. Fr. *Crampon*—pron. kram-pohn; Ger. *die Leim-zwinge* (*Leim*, glue, *Zwinge*, hand-screw).

Crane, in *Construction*. A fixed framing of timber or iron, consisting of a vertical pillar or “post,” stayed and supported by guys or ropes or chains anchored in the ground. The post is capable of swinging or turning round on its centre, carrying with it the horizontal beam at the end of which the pulley is secured, over which the lifting chains are passed. The chain is hauled in or let out as desired by the winch gearing at the foot of the vertical post. Syn. Fr. *Grue*—pron. grueh (from the Latin *grus*, the long-legged bird, or crane); Ger. *Krahn*—pron. krahnn.

Crenelles, in *Architecture*. The open spaces in a battlement, the apertures or loopholes therein. Syn. Fr. *Créniaux*—pron. kray-know; Ger. *Schiezscharte*—pron. sheeche-shar-teh—literally “a shoot-hole,” from *schiessen*, to shoot.

Crenelated, in *Mouldings*. Characteristic of the Norman style of Gothic architecture, in which parts are indented, giving the appearance of a battlement on a flat surface. Syn. Fr. *Crénelé*—pron. kray-nell-eh; Ger. *mit Zinnen versehen*—pron. mit tsinn-enn ferr-zay-en—literally “provided with battlements or pinnacles.”

Crest, in *Architecture*. The ornament which surmounts or finishes a wall; the finials or crosses (which see) are also so called. Der. Latin *crista*, the crest or top part. Syn. Fr. *Crête*—pron. krayt; Ger. *Krone*—pron. kroh-neh—a crown; *Kamm*, a crest or ridge; *Helmzierrath*—pron. helm-tseer-raht—literally “the ornament or crest of a helm” (*Zierrath*, decoration ornament).

Crest Tiles, in *Slating*. The tiles—more or less ornamented, sometimes plain—by which the ridge of a roof is finished.

Croquets, in *Architecture*. Ornaments—usually conventionalised flowers—which project from and finish the surface of gables or inclined surfaces of buildings. Syn. Fr. *Crochet*, a hook—pron. kro-shay; Ger. *Häkchen* or *kleiner Haken*—pron. hayk-chen, kline-err hahk-en (*Haken*, a hook). The style of the ornament is hook-like.

Cross, in *Architecture*. The finial (which see) or finishing ornament surmounting a gable is so called when it assumes the general form of a cross—more or less conventionalised. Der. Latin *cruz*, a cross. Syn. Fr. *Croix*—pron. krwah; Ger. *Kreuz*—pron. kroits.

Cross-cut, **To** (wood or stone)—i.e. to saw wood against or across the grain, or a stone across the width or transversely to the length of the block. Syn. Fr. *Scier le bois contre le fil, or en travers, or transversalement*—pron. see-eh leuh bwah kohn-terr leuh feel, ahn trah-vairr, trahns-vairr-sahl-mahn; Ger. *Holz quer durchsägen*—pron. hollts quair doorch-zay-gen. Syn. Fr. for “to cross-cut stone,” *Couper une pierre en travers*—pron. kooch-pay uehn pee-airr ahn trah-vairr; also *Traverser une pierre*—pron. trah-vairr-say; Ger. *einem Stein kreuz-hieb machen* (*Kreuz*, cross, *Hieb*, a cut)—pron. ine-em stine kroyts-heeb-mahchen. Syn. Fr. for “cross-cut,” generally, *Débillarder*—pron. day-beel-arr-day; Ger. *Kreuzweis schneiden*—pron. kroyts-wise shnde-en. Syn. Fr. for “cross-cut saw,” *Passe-partout*—pron. pass-pahr-tooh; also *Harpon*—pron. har-pohn; also *Scie de trancers or à deux mains*—i.e. a two-handed saw used by two men in cutting a log or a tree across, one man working at one side, the other at the side opposite,

each alternately pulling and pushing or following—pron. see deh trah-vairr, ah deuh maihn; Ger. *Kreuzschrotsäge* (from *schrotten*, to cut). Syn. Fr. for "cross-grained wood," *Bois debout*—pron. bwah day-booh; also *Coupe de bois transversale*—pron. koohp deuh bwah trahns-vairr-sahl; also *Côté de la moelle du bois*—literally "the narrow side of the wood," in allusion to the cutting of a bone across, which exposes the marrow or interior filling—pron. koh-tay deuh lah mohell duuh bwah. A similar idea is followed in the German synonym *Hirnholz*—literally "brain-wood," that is, wood showing the characteristics when sawn across which a skull cut across would expose, and show the brains—pron. heerrn-hollts; also *Kreuzhiebholz*.

Cross-grained Stuff, in Joinery. Wood which has the fibres running transversely to or across the general surface.

Crow-bar. A tool or implement, a lever, made of a long bar of iron with a point more or less sharp, for inserting under stones, balks of timber, etc., and prising or raising them up, so as to be moved along by manual force. Syn. Fr. *Levier de fer* (iron lever)—lev-ee-eh deh fairr; Ger. *die Krähe, das Brecheisen* (Krähe, a crow, *brechen*, to break, and *Eisen*, iron)—pron. dee kray-eh, dass brech-eye-zenn. It is also known in German as *Brechstange* (*brechen*, to break, *Stange*, a bar).

Crown of an Arch, in Masonry. The central or highest point of an arch.

Crown Post, in Carpentry. The central or middle post in a roof truss.

Crypt, in Architecture. A vaulted chamber in the basement or lower part of a cathedral or church—used sometimes as subterranean chapels or tombs. It is derived from the Latin *crypta*, literally "a place of concealment," and this from the Greek *kryptê* (from *kryptein*, to conceal or hide). Syn. Fr. *Cave*—pron. kahv or cawv, a cellar or underground apartment, or *Crypte*—pron. kreetp; Ger. *Gruft*—pron. grooft, a vault or grotto; also *Crypte*—pron. krip-teh.

Cubic Foot. A term employed in estimating the quantity and the cost of the materials of building construction. It means a body which measures a foot every way. A "die" represents the form it would assume, having six sides or surfaces all equal in measurement. Der. From the Latin *cubus*, a solid having six equal square sides. Syn. Fr. *Pied-cube*—pron. pee-ai-kuhb (*pied*, a foot); Ger. *Kubik Fuss* (*Fuss*, a foot)—pron. koo-beek fooce.

Curve, To-Curved. Terms often used in construction to indicate that a line or part of a body is not straight, but bent inwards or outwards, forming either a concave or a convex part or surface. Der. Our word comes from the Latin *curvus*, bent or

arched. Syn. Fr. for "curve," *Courbure*—pron. koohr-buehr, or *Courbe*—pron. koohrb; also *Cambure*—pron. kam-buehr (our word "camber" comes from this, which see), or *Voussure*—pron. vooch-suehr; Ger. *Kurve*—pron. koohr-veh; also *Krümmung*—pron. kruehm-oong. Syn. Fr. for "curved," *en Courbe*—pron. ahn koohrb; also *Courbe*—pron. koohr-bay; Ger. *Krumm*—pron. kroom. Syn. Fr. for "curvature" or "curving," *Courbage*—pron. koorr-bahj; Ger. *Krümmung*—pron. kruehm-moong. Syn. Fr. for "to curve," *Courber*—pron. koohr-bay; also *Cintrer*—pron. sain-tray; Ger. *Krumm machen*; also *Wölben*—pron. voehll-ben; also *Cylindrisch machen*, or *Biegen* (*biegen*, to bend)—pron. see-lin-drish mach-enn, bee-gen.

Damage to Work. Work injured by carelessness or accident, or by natural wear and tear, is said to be damaged, and a loss or deterioration in value is incurred. Der. Our word comes from the French *dommage* (doh-majhe), and this from the Latin *dammum*, loss. Syn. Fr. for "to damage," *Endommager*—pron. ahng-doh-majhe-eh, or *Détériorer*—pron. day-tare-ee-ohr-eh; also *Dégrader*—pron. day -grah -day; Ger. *Schaden*—pron. shah-denn, or *Leiden*—pron. lide-enn; also *Beschadigen*—pron. bay-sha-ee-ee-genn. Syn. Fr. for "damaged work," *Ouvrage endommagé* or *détérioré* or *avarié*; Ger. *Beschädigtwerk*.

Damper. In a stove or furnace the metal plate or valve used to close wholly or partially the opening to the chimney pipe or stalk, in order to regulate the draught—to "damp" or lessen the activity of the combustion. Der. Our word damp comes from the German *Dampf*, vapour, and this from *dampfen*, to smoke like vapour rising, to evaporate. Syn. Fr. for "damper," *Cle, Clef, or Soufflet d'une cheminée*—pron. clay, klaif, sooh-flay duuhn shemm-ee-nay; also *Clapet de la cheminée*—pron. klah-pay, or *Registre*; Ger. *die Klappe*—pron. dee klah-pay; also *Register von Rauchröhre*—pron. ray-geese-terr fonn rowch-roo-ee-ray.

Daywork. The term used to indicate that the workman is paid daily, or at a certain rate per day, or by the hour, in place of receiving a weekly wage. Syn. Fr. *Ouvrage de la journée*—pron. oohv-rahj deh lah jhoor-nay, or simply *Journée*; also *Travail à la journée*—pron. trah-vahil; Ger. *Tagarbeit*—pron. tahg-ahrr-bite, or *Tagwerk*—pron. tahg-vairrk.

Deadening. A synonym for deafening (which see in text). Der. The word dead is the same in spelling as the Old English, deprived of life; deadening sound is thus making it inactive. The word is used in connection with several points in construction, as "dead work." Syn. Fr. *Bois pourri*

(from *pourir* [pooh-reer], to rot or become rotten)—pron. bwah pooh-ree; Ger. *Holzverfault*—pron. fair-fowlt. Syn. Fr. for "dead weight," as of soil, or of a brick or stone wall resting upon timber in a permanent and steady or immovable position, equivalent to dead pressure, *Pression inerte*, or simply *Inerte*—pron. pray-see-ohng ehng-airt; Ger. *Boden Ziegelstein* or *Stein*; also *Todtgewicht* or *-druck* or *-pressung* (*gewicht*, *weight*, *druck*, *pressure*)—pron. todd-gay-weecht, droohk, pray-soohng. Syn. Fr. for "dead level," a phrase often used in construction, signifying a level accurately laid down, not likely to be changed—a positive and permanent level, *Plaine*—pron. plahng; Ger. *Eibene*—pron. i-benn-eh. Syn. Fr. for "dead wall," *Mur sans ouverture*, or *Façade feinte*; also *Mur orb*; Ger. *Blinde-mauer*; also *Mauer ohne Fenster* or *Pforte* or *Oeffnung*.

Declivity of a roof, of a piece of land, road, etc. *Der.* Our word comes but with little change from the French *déclivité*, this from the Latin *declivus*, a slope or incline, and this from *de*, and *clivus*, a slope. Syn. Fr. for "declivity, as of a roof," *Déclivité*, *Pente*, or *Plongée d'un comble*—pron. day-klee-vee-tay, pahngt, plohn-jhay duuhn coh-m-bell; also for "declivity" generally, *Escarpe-ment*—pron. aise-kahrp-mahng (from *escarper*, to cut down steep or sloping); Ger. *Abdachung*, or *Dachgefälle*—pron. dakk-gay-fah-eel-eh; also *Böschung* (from *boschen*, to slope, to scarp)—pron. boh-eesh-ohng.

Deductions. A term used in construction to indicate the amounts taken from an account or estimate representing either overcharges or items inserted by mistake or oversight. *Der.* The word comes from the Latin *de*, and *ducere*, to lead or to draw from, the latter meaning being followed in our word. Syn. Fr. *Déduction*—pron. day-doox-ee-ohng; Ger. *Abzug*—pron. ahwb-tzoohg. In the sense of "allowance" being made, Syn. Fr. *Remède*—pron. reh-made; also *Don sur le poids* (a gift or allowance upon the weights, etc.); also *Allocation* (as upon charges made for changes or transport of materials)—pron. ahll-ob-kah-see-ohng; Ger. *Remedium*—pron. ray-may-dee-umm; also *Nachsicht*—literally "after sight, an allowance made after the party charged sees the account or charge"—pron. nakk-seegt; also, as for allowance in weights, *Gewichtsnachsicht*.

Descent, as of a sewer or drain, equivalent to "fall," slope, or inclination. *Der.* Our word comes from the French *déscente*, this from the Latin *descensus*, and this from *descendere*, from *de*, and *scandere*, to climb or mount—i.e. the opposite of mounting—that is, *ascending*, to coin a word for the nonce. Syn. Fr. for "descent," as of the gutters of a roof, *Larmier*—pron. lahr-mee-

eh; Ger. *Abdach*—pron. ahb-dakk. Syn. Fr. for "descent or fall" generally, *Déscente* or *Pente* or *Inclinaison*—pron. day-sahngt, pahngt, een-klee-h-nah-ee-sohng; Ger. *Fall*; also *Niegunghang*.

Describe or mark out or lay down a curved line. A term often used in constructive drawing. *Der.* Our word comes from the Latin *de* and *scribere*, to write, to show in lines. Syn. Fr. for "to describe, as say a curve," *Décrire* (from *écrire*, to write) *une courbe* or *ligne courbée*—pron. day-kreer uehn koohrb, leegn koohr-bay; Ger. *eine Kurve beschreiben*—pron. ine-eh koor-veh beh-scribe-en.

Dip. A term often used in construction, to indicate the angle or slope of a body, as of a roof. *Der.* From the Old English *dippan*, to plunge into or from. It is synonymous with fall. Syn. Fr. *Inclinaison*; Ger. *Biegung*.

Disposition. A term often employed in connection with building design, as indicating the arrangement of the rooms—parts of construction one to another. *Der.* Our word is borrowed directly from the French, which comes from *dis*, and *poser* (poh-zay), to place, to lay out—*poser* being derived from the Latin *ponere*, to put out, to place. Syn. Fr. for "disposition of the apartments of a building," *Disposition* or *Agencement des appartements* or *des chambres*—pron. deese-poh-seeze-ee-ohng, ah-jhence-mahng days or daize eh-pahr-tee-mahngt; Ger. *Einrichtung* or *Anordnung von Zimmern*—pron. ine-reecht-ohng, ahn-ordd-noong fonn tze-mern.

Distribution. A term used in construction to denote the method of adjusting weights or pressures, as in framework or walls, so as to give as even or uniform a pressure over the whole, avoiding excess on one part, deficiency on another. *Der.* Our word to distribute comes from the Latin words *dis*, asunder, and *tribuere*, to bestow, to give or assign to, to give in parts. Syn. Fr. for "distribution," identical with our word, but pronounced deese-tree-buuh-see-ohng; Ger. *Entheilung*—pron. ine-tile-ohng, or *Einordnung*. Syn. Fr. for "distribution of pressure," *Distribution de pression*—pron. day pray-see-ohng; Ger. *Eintheilung von pressung*. Syn. Fr. for "distribution of building materials" on the ground, *Distribution* or *Repartage des matériaux de construction*—pron. ray-pahng-dahjā (from *repandre* [ray-pahng-derr], to spread out, to scatter); Ger. *Vertheilung der Baumaterialien*.

Dowel, in Carpentry and Masonry. A pin, trenail or key, either round, square, or rectangular in section, driven into a hole or a recess made in pieces of timber or stone* at their points of junction, by which they are kept in connection or are secured

together. This is done by making an aperture or recess or socket in the face of each piece the full width of the pin, trenail or key, and equal to one-half of the depth or thickness if square or rectangular, or half of the diameter if circular. When the two pieces are brought close together, there is an aperture the same size as the dowel between them, into which the dowel or pin is driven, keeping the two pieces in connection, as one half the dowel takes a grip of the end of one piece, the other half the dowel of the other piece. Dowels are of different forms, a greater variety being used in masonry than in carpentry. In order to take a better grip or hold of the block, the dowel is sometimes made in the form of a double dovetail, the narrowest part of the dowel being at the central line or line of junction of the two pieces to be connected together. *Der.* Our word is evidently from the French *douille*, a socket or socket-joint—a socket or recess being necessary into which to drive the dowel. Syn. Fr. *Cheville*—pron. shay-veel; also *Goujon*, a gudgeon, a pin—pron. gooh-jhon; also *Douille*—pron. dooh-eel; Ger. *Dobel*, a plug or pin—pron. doh-bell. Syn. Fr. for “dowelling,” *Cheillage*—pron. sheh-veel-ahj; also *Assemblage en goujons* or *douilles*—pron. ah-sahm-blahj; Ger. *Luftstrom*; also *Luftzug*—pron. looft-tsoog.

Draught (see text) of **Air** (current of air). *Der.* Our word is from the Old English *droht*, a course, a drawing (from *dragan*, to draw). Syn. Fr. for “a draught or current of air” in a room or through a fireplace, stove, or furnace, *Courant de l'air* or *de l'atmosphère*—pron. kooh-rahng deh lair, day lawht-moh-sphair; Ger. *Strom* (stream) *von Luft*—pron. stromm fon looft; also *Luftzug*—pron. looft-tsoog.

Dust Bin, in *Domestic Architecture*. A synonym for ashpit. *Der.* Our word is the same as the Old English, and seems to be allied to the German *Dunst*, a vapour. Syn. Fr. for “dust,” *la Poussière*—pron. pooce-yairr; Ger. *Staub*—pron. stowb (*Stäubchen*, a mite, an atom—*stauben*, to dust). Syn. Fr. for “dust-bin,” *Ordures*—pron. ohr-duehr; also *Balayures*—from *balayer* (bah-lay-yay)—pron. bah-lay-yuehr; also *Cabinet pour la poussière*; Ger. *Staubloch*, or *Staubzimmer* or *kammer*.

Dyke or **Dike**. Properly a wall built along the margin of a river to protect the bank or to prevent its overflow—a dam built on the margin of the sea to keep its waters from overflowing the land inland. These dykes are met with in their greatest number and proportions on the coast of Holland. The word is also used throughout Scotland and parts of the north of England as synonymous with a “wall,”—though perhaps there the distinction is that the inclosing walls of fields in rural districts

are termed dykes or dikes, the term wall being applied to inclosing or protecting structures of a better class erected in towns, or in connection with houses of a superior class. Syn. Fr. for “dyke” in its proper acceptance as above, *Digue*—pron. deeg; also *Turcie*—pron. tuhr-see; Ger. *Uferdamm*—pron. ooh-fare-dam.

Ease, To, in Construction. A term much used denoting that a part, as, for example, a beam cambered too much, or a strap too tightly keyed or screwed up, is to be somewhat relieved or loosened or let down. *Der.* Our word comes either from the French *aise*, or the Old English *eadh*, rest, quietness. Syn. Fr. for “to ease,” to humour, *Soulager*—literally “to solace”—pron. sooh-lah-jhay; also *Débarrasser*—pron. day-bah-rah-say; also *Mettre à l'aise*—pron. mett-err ah layze; Ger. *Erleichtern*—pron. err-lyech-tairrn; *Beruhigen*—pron. beh-rooh-igh-en.

Ebony. A hard, close-grained wood, capable of taking on its surface a high polish. It is much used in the higher-class work of cabinet-making. There are several varieties of it, as black, red, grey, mottled, etc.; but the one chiefly, almost indeed wholly, used—at least the most highly esteemed, is the black or deep black. Syn. Fr. *Èbène*—pron. eh-bane, or *Bois d'èbène*—pron. bwah day-bane; also (to distinguish the colour) *Bois d'èbène noir* (black)—pron. nwahr; Ger. *Ebenholz*; also *schwarzes Ebenholz*—pron. shvahrst-sess ay-ben-hollits.

Edge (see text). Syn. Fr. for “to take off the edge,” *Epointer*—pron. eh-pwahng-tay, or *Oter le fil*—pron. oh-tay lay feel or fee; also *Emousser*—pron. eh-mooss-eh—literally “to take moss off, to dull, to make blunt”; Ger. *Abstumpfen*—pron. ahwb-stoomp-fenn (from *stumpf*, blunt, dull, obtuse); also *Stumpf machen*. Syn. Fr. for “edging stone” in road making, synonymous with “curb stone,” the row of stones which divides the footpath or pavement from the road, *Garde pavé*—pron. garrd pah-vay; also, in a general sense, *Bord en pierre*; also *Tour*, or simply *Bord*; Ger. *Bordstein*—pron. bohrd-stine; also *Steineinfassung*.

Eking or **Eking-out Piece**, in *Carpentry. *Der.* Our word eke is the Old English *eac*, likewise or the same—*eacan*, to eke, to add to. Eking-piece in construction is a piece inserted between two other pieces or added to the end of one of them, or to a single piece, in order to lengthen it. Syn. Fr. *Alongé*—pron. ahl-lohnj, or *Railonge*—pron. ray-lohnj; Ger. *Verlängerungsstück*—pron. ferr-leng-err-oong-stuek.*

Elasticity. One of the characteristics of wood and metal useful in construction—that property which enables a beam, for

example, to return to its original form, shape, or position, when relieved from a heavy load placed upon it, or which is equivalent to that property or force which enables the beam to resist the pressure tending to bend it downwards or yield under the pressure put upon it. The term is synonymous with "resiliency," which means the power of leaping (springing) back again to a position in which a body, as a beam, was before it was subjected to the heavy weight. *Der.* Our word elastic comes from the Latin *elasticus*, springing back, and this from the Greek *elaunein*, to drive back. *Syn. Fr.* *Force* or *Pression d'élasticité*—pron. forss, pray-see-ohng day-lah steece-ee-tay; also and simply *Elasticité*; *Ger.* *Springkraft*—pron. spreeng-kraft—literally "spring force or power"; also *Elasticität*—pron. ale-ass-tee-see-tah-eet.

Elliptic Arch. An arch the curve of which is not semicircular or segmental, but that which is known as the ellipse. *Der.* Our word comes from the Latin *ellipsis*, and this from the Greek *elleipsis*, a defect indicating that, as compared with a semicircular curve, that of the ellipse was defective, as it appeared depressed, or more probably, seeing that the ellipse is produced by cutting a cone by a line oblique to its base: the inclination of the ellipse or curve produced to the base of the cone was defective when compared to the inclination of the ellipse to the side of the cone. Be these speculations as they may, the fact remains that the ellipse was used by the Greeks as giving curves to their mouldings, etc., which answered better to æsthetic claims than did circular curves. *Syn. Fr.* for "elliptical arch," *Arc elliptique*—pron. ahrr-keh-leep-teek; *Ger.* *elliptischer Bogen*—pron. ell-eep-tish-err boh-genn.

Embankment, in Earthwork. A mound or consolidated heap of soil employed in various ways, as, for example, a barrier and a resisting force to water collected and dammed up behind the structure placed across a valley or depression in the ground or at the banks of a river to keep the water from overflowing the adjacent lands, or in raising ground for certain special purposes in building sites or garden ground, etc. An embankment proper has sloping sides, thus making the top much narrower than the base. The inner slope is less steep than the outer. Great care is required in securing the solidity of the embankment. *Syn. Fr.* *Levé de terre*—pron. leh-vay day terr; also *Remblai*—pron. rahm-blai—i.e. carried earth or artificial soil (from *remblayer* [rahm-blai-yea], to fill up with soil or earth carried specially to the place; also *Revêtement des bords d'une rivière*—pron. ray-vate-mahng day bohrrd duuhn ree-vee-air; *Ger.* *Erddam*, or *Flussenerddam*

(*Fluss* [flooce], a river); also *Stroum*—pron. strohm.

Enlargement. A term often used in construction as indicating that a body or surface or a building is extended or amplified. Properly the term is applicable only to extension by breadth or width, and this from the derivation of the word; but its application practically takes the widest scope. *Der.* Our word enlarge is from the French *élargir* (eh-lahr-jheer), to make broad, and *large*, broad, from the Latin *largus*. *Syn. Fr.* for "enlargement," *Élargissement*, broadening or widening; also *Agrandissement* (in the sense of making generally larger or greater)—pron. ah-grahn-deece-mahn; also *Renflement*—pron. rahn-fell-mahn (from *renfler* [rahn-flay], to swell or bulge out, to increase in size); *Ger.* *Erweiterung*, making wider, or *Verlängerung*, making longer; also *Vergrößerung*, making greater or generally larger—pron. ferr-groeh-sair-ohng.

Equilibrium, in Construction. That condition in which all the parts are, as regards pressure put upon them, equally balanced. This state is the great object aimed at in framing, that the pressure sustained by the whole shall be so well distributed that no one part shall have to bear more than its own portion. *Der.* Our word is from the Latin *æquus*, equal, and *libra*, a balance—equality of weight or pressure. *Syn. Fr.* *Équilibre*—pron. eh-queue-lee-berr; *Ger.* *Stabilegleichgewicht* (stable or firm equal weight)—pron. stah-bee-lay-glike-gay-veecht; also *Ebengewicht*—pron. eh-ben.

Estate. A term often employed in building construction, in the purchase of land for building sites, etc., meaning the landed property of which the site forms a part. *Der.* Our word comes from the Latin *status*, a standing, and this from the verb *stare*, to stand; or from the French word *état* (ate-ah or eh-tah). This latter word is, however, a synonym for our word "state"—that is, the Government, or the Government as representing the constitution of our country. The word estate with us has a much more limited meaning than this, as it refers only to a part of the general land of the nation, and which belongs specially to one individual. It is more accurately said to be derived from the Latin word we have given. It carries, moreover, with it the distinction between landed property, which an estate is, and other property—namely, that it is fixed, stationary, (*stare*, to stand), cannot be moved from place to place like other properties, which are hence legally distinguished as movables, or movable property. *Syn. Fr.* for "estate," a fixed, landed property, *Domaine*—pron. doh-mahn or -mahng; also *Propriété en*

terre—pron. proh-pre-eh-tay ahng tairr; Ger. *der Stand*—pron. derr stant, or *Grundstück*—pron. groohnd-stuuh-ek; also *Land-sitz*—pron. lant-seetz.

Estimate, in Building. The document containing a statement of the cost of the work completed; the prices at which the various departments are to be undertaken by the contractor. *Der.* Our word is from the Latin *æstimare, æstinatum*, to value, valued. Syn. Fr. *Estimation*—pron. ess-tee-mah-seen (from *estimer* [ess-tee-may], to reckon, to price, to value; Ger. *Rechnung*—pron. rech-noohng (from *rechnen* [rech-nenn], to reckon); also *Schätzung*—pron. shetts-ooohng (from *schätzen* [shetts-en], to value).

Evaluation. A term used sometimes as synonymous with estimate. There is this distinction, however, between the two in building technicalities: that while the estimate refers chiefly, almost exclusively, to the prices at which the contract work connected with the building will be done, the term evaluation refers more to the prices at which movables, as building plant, are estimated or valued, or the price of a building itself when completed. The term is therefore more correctly synonymous with our other term, simply valuation, than with estimate—that is, in a building sense. Syn. Fr. *Evaluation* (same word as ours)—pron. eh-vahl-ueh-ah-seen (from the verb *évaluer* [eh-vahl-ueh-eh], to value); Ger. *Schätzung* (see Estimate).

Execute. A term frequently employed in the wording of building specifications, as synonymous with doing, performing the work, or carrying out certain work, as “execute the whole in a proper and workmanlike manner.” *Der.* Our word comes from the French synonym *exécuter* (aix-eh-kueh-teh), and this from the Latin *exsequi*, prefix *ex*, and *sequor*, I follow—meaning to go on to the end, one part following the other till the whole is completed, what is popularly called “following up” or “out.” Syn. Ger. *Ausführen*, to lead out—pron. owss-fueh-renn; also *Vollziehen*, full drawing (out)—pron. foll-tsee-en; also *Executiren*—pron. aix-ay-kooh-teer-en, or *Verrichten*—pron. fer-richt-en.

Existing. A term frequently employed in certain specifications, as those connected with alterations, repairs, extensions—as “to the existing.” *Der.* Our word comes from the Latin *existere*, and this from *ex*, and *sistere*, to stand (our word insist comes from this)—meaning that it is a thing which stands, is there, exists (to come round to the term in question). Syn. Fr. for “to exist,” *Exister*—pron. eggs-eece-tay; Ger. *Existiren*. Syn. Fr. for “existing,” *Existant*—pron. eggs-eece-tahn; Ger. *Vorhanden*—pron. forr-hand-enn.

Expansibility. A term used in connec-

tion with materials, as metals, denoting their tendency to stretch out or extend under any increase of temperature. This property is the opposite or converse of contraction. *Der.* Our word comes from the Latin *expandere*, and this from *ex*, and *pandere*, to spread out. Syn. Fr. *Expansibilité*—pron. aix-pahn-see-bee-lee-tay, or *Dilatibilité*—pron. deel-ah-tee-bee-lee-tay; also *Extensibilité*—pron. aix-tahng-; Ger. *Dehnbarkeit* (from *dehnbar*, extensible)—pron. daihn-barr-kite.

Expert. A term used to indicate that one has a thorough knowledge, derived from practical work or experience, of some branch of building construction. *Der.* Our word is from the Latin *expertus*, experienced, and this from *ex*, and *perire*, to try. Syn. Fr. *Expert*—pron. aixs-paihr or -paihrt; Ger. *Kunstverständige*—pron. koohnst-fair-stah-een-dee-geh.

Extras. A technical term in building construction to indicate items of work done, and cost of the same, extra to or beyond those named in the “specification” upon which the “estimate” was made and the “contract” based and executed. “Extras,” or work additional to the work as originally planned and specified, are generally done at the request of the proprietor, sanctioned by the architect, and when executed are passed by him, and the amounts paid to the contractor. As “extras” are paid on a different and generally a higher scale than that on which the estimate or contract is based, “extras” are often looked to by some builders as a way of recouping themselves from any loss which might accrue from having taking the general work at “too low a figure,” as the technical phrase has it. *Der.* Our word extra comes from the Latin preposition which signifies beyond or in addition to, and is used very frequently as a prefix to many of our ordinary words. Syn. Fr. for extras or extra to a contract (building), *Dehors* (out of or away from or outside) *de contrat* or *de marché*—pron. deh-horr deh kohn-trah, marr-shay; also *Charges de contrat* or *de marché extraordinaires*—pron. aix-trah-ohrr-dee-nair; Ger. *ausser der Regel vom Contract*—pron. owss-err dare ray-gell fom conn-trahkt: or a more direct syn., *ausnahmsweise Kosten*; but the Latin *Extras* is a very general synonym in both French and German.

Fall. A term used in construction as synonymous with the slope or incline of ground or a drain. *Der.* From the Old English *feallan*, to descend or go down, or directly from the German *fall*. Syn. Fr. for “fall,” *Pente*—pron. pahnt; Ger. *der Fall* or *die Senkung*—pron. zen-kuuhng.

Fanlight or window. A window so

called from its resemblance to a fan when spread out, the ribs of the fan being represented by the sash-bars or astragals, which radiate at intervals or equal spaces from the centre to the circumference of the light or window, thus dividing it into a series of glass compartments. The form is generally semicircular, and is usually placed centrally over a doorway. *Der.* Our word "fan" is from the Old English *fann*, a covering, an awning, or from the Latin *vannus*, a fan, from which our word vane. *Syn. Fr.* for "fanlight or window," *Fenêtre en éventail* (a fan)—pron. fenn-ay-terr ahn eh-vahn-tahl, or simply *Eventail*, when referring to building work; *Ger. halbrundes Fenster* (a half-round window, referring to its generally semicircular form)—pron. hahlb-roohn-dess fenn-ster; also *fächerförmiges Fenster*—that is, a fan-formed window—pron. feh-er-foerr-mich-es; or simply *Fächerfenster*.

Fascine. A bundle of twigs or small branches of trees, tied firmly together by withes, generally of willow, used in the formation of embankments on river sides, or for facing river banks, or for consolidating foundation work in yielding, marshy soils. The term "fagot" is often employed as a synonym—both being indifferently used. *Der.* The word fascine comes from the Latin *fascia*, a bundle, a thing bound together, or from *fasciculus*, a little bundle, a bunch of things tied together. The word "fagot" is from the French *fagot* (fah-goh), and this from the Latin *fax*, a torch—a torch being originally a bundle of combustible twigs, etc., tied together to afford a greater light than a single piece would give. *Syn. Fr.* for "fascine," *Faisceau*—pron. fah-soh; *Ger. Faschine*—pron. fah-sheen-eh; also *Reisbündel* (twig- [Reis, a twig] bundle)—pron. rice-buuh-een-del. *Syn. Fr.* for "fascine work," *Fascinage*—pron. fah-seen-ahje; also *Fagotaille* or *Fagotage*; *Ger. Faschinenwerk*—pron. fah-sheen-enn-vairk; also *Reisbündelbuhnewerk*—that is, twig-bundle-board or staging work—lining with fascines (from *buhnen*, to board, to line); also *Faschinenbuhne*. *Syn. Fr.* for "foundation work in fascines," *Fondation* or *Fondement en fascines*, or *sur les fascines*—pron. fohng-da-see-ong, fohngd-mahng ahng, suuhr lay, fah-seens; *Ger. Faschinen Gründung*—pron. gruuh-een-dooohng, or *Reisiggründung*.

Feed-pipe, for water. The main pipe by which water is supplied to a house, or water to a kitchen or bath boiler, or to the bath itself. *Der.* Our word comes from the Old English *fedan*, to feed, supply with nourishment, or as in the present case with materials. *Syn. Fr.* for "feed-pipe," *Tuyau* or *Tube alimentaire* or *d'alimentation*—pron. twee-hoh or tuehb all-ee-mahn-tairr, dahl-ee-mahn-tah-seon; *Ger. Füllröhre* (*füllen*, to fill)—

pron. fuehll-roeh-reh; also *Wasserleitungs-röhre* (water-leading pipe: *leiten*, to guide, to lead). *Syn. Fr.* for "feeder for water supply" (for which our synonym is catch-water, or intake ditch or reservoir for water), *Fosse* or *Canal d'alimentation*—pron. foss; also *Alimenteur de l'eau*—pron. ahl-ee-mahn-teuhrr deh loh; *Ger. Wassergraben* or *-behälter*.

Felt, for roof covering—asphalted. A coarse woollen fabric worked up with bitumen and formed into sheets of definite widths—these being cut up into the requisite lengths and nailed to the roof boarding. A cheap substitute for slates, tiles, or zinc coverings. *Der.* Our word is the same as the Old English word, to denote the working up of hair or wool fibres into a species of cloth, afterwards compressed or squeezed together. *Syn. Fr.* for felt, *Feutre*—pron. fuuh-terr; *Ger. Filzen*—pron. feelt-zenn. *Syn. Fr.* for "felt roof covering," *Feutre pour la couverture des toiles*; *Ger. Dachfilzenplattung*.

Fill in. A phrase used, as in foundation work—"fill in the trenches with soil," "fill or fix in the windows," etc. *Der.* Our word fill comes from the Old English *fyllan*, to make complete or full, as a vessel with water up to the brim without running over. *Syn. Fr. Remplir*—pron. rahm-pleerr—this comes from the Latin *plere*, to fill (our word "complete" is *com* and this Latin verb); *Ger. Füllen*—pron. fuehl-enn. *Syn. Fr.* for "to fill up trenches with earth," *Remplir les tranchées de terre* or *de sol*—pron. rahm-pleerr lay trahnsh deh tairr or deh soll; *Ger. Graben mit Erde füllen*. *Syn. Fr.* for "filling up," in mason work, *Remblai*—pron. rahm- or rahm-blay; *Ger. Ausfüllung*—pron. owss-fuehil-loong.

Filter, Water. An arrangement of what are called filtering materials, such as sand, charcoal, sponge, wool, spongy iron, and the like, by which water, either forced through them by pressure or passing through them by gravitation, is freed from its impurities, chiefly mechanical, and rendered more fitted for purposes in which pure water is required. *Der.* Our word comes from the French *filtrer*, or from the Italian *filtrò*, wool which has gone through the fulling process, which renders it more fitted to arrest the impurities of water. *Syn. Fr.* for "water filter," *Filtre*—pron. feel-terr, or *Filtreur*—pron. feel-trah-tuurr; also *Couloir*—pron. koohl-wharr, or *Percolateur*—pron. perr-koh-la-tuurr; *Ger. der Filter*—pron. derr feel-tare; also *Filtrmaschine*—pron. feel-treer-mah-sheen-eh. *Syn. Fr.* for "filtering materials," *Matériau pour filtrage*—pron. feel-trajhe; *Ger. Filterungsmaterialien*.

Fireproof Building. Buildings so constructed that they are assumed to be proof

against the action of fire. All that can be said of any system which has as yet been introduced into practice is that the buildings are relatively safer than others not so constructed. Few have proved to be absolutely safe from fire—fireproof, as the technical phrase puts it. *Der.* The word fire comes from the Old English *fyr*, the heat or lively appearance of flame or of red-hot matter, the result of the burning of combustibles. Syn. Fr. for “fireproof building,” *Bâtiment* or *Structure à l'épreuve du feu*—pron. bah-tee-mahn or struck-tuehrr ah lay-preuve dueh feuh; Ger. *feuerfester Bau*—pron. foy-err-fest-err bough; also *feuerstehender Bau*—pron. foy-err-stay-henn-derr.

Fissure, in Stones, etc. A crack or opening interrupting the general line or grain of the material. *Der.* Our word comes directly from the French, and almost so from the Latin word *fissura*, a cleft. Syn. Fr. *Fissure*—pron. feeh-suuhrr; also *Fente*—pron. fahngt; Ger. *Spalte*—pron. spall-tay (from *spalten*, to split, cleave, or divide); also *Kluft*—pron. kloohft.

Fit, To. The word fit, as generally applied, denotes that a thing is neat, well made, and this is the meaning of the Old English word *feat*, from which our word comes. Our word may also be derived from the French *fait* (fay), which means “made” in the fullest sense of the term—that is, well made, complete. This comes from the Latin *factus*, made (from *facere*, to make). The word fit is also used as synonymous with fix, so that our phrase is equivalent to to fix, to secure, to erect. Syn. Fr. for “to fit,” *Monter*—pron. mohn-tay; also *Assurer*—pron. ah-suehr-ay; also *Mettre bien*—pron. mett-err bee-ahn; also *Ajuster*—pron. ah-jhuess-tay; Ger. *Aufstellen* or *Ordnen*; also *Schichten* or *Sichern* (to make sure—pron.) zich-ernn. The Scotch word “sicker” or “siccar” (sure), comes from this: “mak siccar” (make sure) is almost Ger. *Sicher machen*; also *Befestigen*—pron. beh-fess-tig-enn. Syn. Fr. for “to fit a tool” for cutting,” *Mettre à coupe* or *marge* or *tranche*—that is, to place or put, or to give the “cut,” the “edge” on—pron. met-terr ah koop, mahrrj, trahnsh; Ger. *die Schneide geben*—i.e. to give the cut. Syn. Fr. for “fitting,” *Ajustement*—pron. ah-jhuess-t-mahn; also *Arrangement*—pron. arr-ahnj-mahn; Ger. *Verband*—pron. ferr-bant; also *Einrichtung*—pron. ine-richt-oong.

Fix, To. A term much used in construction work. *Der.* Our word comes from the French *fixer*, and this from the Latin *figere*, to make, and *fixum*, made fast, secure, stable, firm: it is often used as synonymous with fit. Syn. Fr. for “to fix,” *Fixer*—pron. feex-ay, or *Attacher*—pron. ah-tahsh-ay; also *Affermir*—pron. ah-fairr-meerr, or *Poser ferme*—pron. poh-zay fairrm; Ger. *Befestigen*

—pron. beh-fess-tig-en; also *Feststellen*—pron. fest-stell-enn, or *Festsetzen*—pron. fest-zet-senn. Syn. Fr. for “fixing,” *Fixation*—pron. feex-ah-seon, or *Fixement*—pron. feex-mahn; also *Fixage*—pron. feex-ahj; Ger. *Festsetzung*, or *Fixirung*; also *die Befestigung*, or *Verdichtung*. Syn. Fr. for “fixed,” *Fixé*—pron. feex-ay; Ger. *Fest* or *Befestigt*. Syn. Fr. for “fixity,” *Fixité*—pron. feex-ee-tay; Ger. *Festigkeit*, or *Stätigkeit*. Syn. Fr. for “fixture,” *Attache*—pron. ah-tahsh, or *Retenue*—pron. reh-tenn-ueh; also *Meubles* (furniture, furnishings) *à demeure fixe*—pron. meuh-bell ah deh-meuhr feex; also *Immeuble par destination*—pron. eem-meuh-bel parr day-steen-ah-seon; Ger. *Feststellung*, or *Befestigung* (more specially applied to “the fixing” (verbal noun); also *nagelfesten Meubel* (“nail fast”); also *das unbewegliche Hausgeräth*—i.e. immovable household furniture.

Flag Pavement. A footpath or side road having the walking surface or tread made of flat stones, called flags or flagstones. *Der.* Our word is probably from the German, greatly corrupted, *fliese* (flee-seh), a floor-stone flat and thin, rectangular in shape, or it may come from a north of Europe word *liag*, a broad, flat stone. Syn. Fr. for “flag or flagstone pavement,” *Pavé de carreaux* (*carreau* [karr-oh], a flat, square stone or tile)—pron. pah-vay day karr-oh; also *Carrelage*—pron. karr-lajhe; Ger. *Fliessenpflaster* (*Pflaster*, a pavement)—pron. flee-senn-pflah-sterr; also *Steinplatten*.

Flap, as table-flap, flap-door. A piece which is hinged to another and horizontal or vertical piece—so that it can hang down or be changed from a hanging or pendulous to a fixed condition. *Der.* Our word comes from the Danish *flappe*, an object which hangs down or is pendulous; it is allied to the Latin *flaccus*, flabby, hanging down in loose folds. Syn. Fr. for “table-flap,” *Abattant d'une table*—pron. ah-bah-tahng duuhn taw-bel, or simply *Abattant*; Ger. *Tischklappe*—pron. teesh-klapp-eh. Syn. Fr. for “flap-door,” synonymous with “trap-door,” *Porte abattante* or *Trappe*; Ger. *Klappethür*, or *Fallthür*.

Flat. A term applied to an object which presents a broad, even surface, generally placed horizontally as a floor, but not necessarily horizontal, as a wall surface is said to be flat though vertical—a roof surface though inclined. *Der.* Our word is from the Icelandic *flatz*, or the German *platt*, having a broad, even surface. Syn. Fr. for “flat,” *Plat*—pron. plah (this is from the Latin *platus*, broad); also *Plain*—pron. plainn; Ger. *Platt*; also *Flach*—pron. flach. Syn. Fr. for “flat piece,” *Plaque*—pron. plahk; also *Plature*—pron. plah-tuehr; Ger. *Stück-platt*—pron. stueck-plahst; also *plattes Stück*. Syn. Fr. for “to flatten,” *Aplatir*—pron. ah-

plah-teerr, or *Aplanir*; also *Laminer*—pron. lah-mee-nay; also *Abaïsser*—pron. ah-base-say; also *Ecacher*—pron. eh-kah-shay; Ger. *Plätten*—pron. plett-enn; also *Plattmachen* or *platt werden*. Syn. Fr. for “flattened,” *Ecaché*; also *Laminé*; Ger. *flach Gemacht*; also *platt Gedrückt*—pron. plaht-geh-druekkt.

Flexibility. That property in materials which admits of their being bent—that is, their fibres changed in their line of direction by force or pressure. *Der.* Our word comes from the Old English *flexibilis*, and this from *flectere*, to bend, and *flexum*, bent. Syn. Fr. *Flexibilité*—pron. fluxe- or flex-ee-beel-ee-tay; the adjectives are also used, as *Souple*, *Pliable*, or *Courbable*—pron. sooh-pell, plee-ah-bell, koor-bah-bel; Ger. *Big-samkeit*—pron. beeg-sam-kite (from *biegen*, to bend). Syn. Fr. for “flexion,” or the bent or curved condition of a body put under pressure, *Cambrure*—pron. kahm-bruuhr—from this comes our technical term camber (which see)—camber of a beam; also *Flexion*—pron. flaxe-ee-ohng, or *Retombée*—pron. ray-tom-bay (from *retomber*, to fall back again); Ger. *die Biegung* or *Richtung*—pron. bee-guuhng, reeght-uuhng.

Flight of stairs. A term in building to indicate the part of a staircase construction in which the steps are placed. A stair may be in one or a single flight—that is, from the lowest step in the one floor to the highest step in the floor above, or the landing. A staircase may be divided into two or more flights, with a landing between each flight. *Der.* Our word flight is from the Old English *flyht*, a flight, and this from *Heogan*, to fly. Syn. Fr. for “flight of stairs,” (properly a “flight of steps,” as it is the number of steps which constitutes a flight), *Suite des marches d'un escalier*—pron. sweet day marish deuhn ess-kahl-ee-yea, or *Rampe d'escalier*—pron. rahmp dess-kahl-ee-yea; Ger. *Treppenarm* or *Treppenlauf*—pron. lowff. Syn. Fr. for “flight” simply, *Etage*—pron. eh-tahj; Ger. *Stufe*—pron. stooch-fay.

Flush. When one body does not at its edge project over the other, but the edges or surfaces are in the same level or line, the edges on the two bodies are said to be flush. *Der.* The word is probably from the Old English *fleotan*, or perhaps more directly from the German *fliessen*, both meaning to flow—the two edges flush, so to say, flowing together or into each other. Syn. Fr. for “flush,” *Sur le même plan* or *niveau* (level)—pron. sueh leh maim plahn, nee-voh; also *Plein*—pron. plainh; also *Sans saillie*—i.e. without projection (from *saillir* [sahl-year], to project)—pron. sahn sahl-yay; also *Defleur* (from *fleurir* [fleuhr-eh], to swell, bulge out, or project)—pron. deh-fleuhr, and from the same root *Afluerré*—pron. ah-fleuhr-eh; Ger. *mit ebener Fläche* (*Fläche*,

area, surface)—pron. mit aib-en-nerr flech-eh; also *Gleich* (level, plain)—pron. glych; also *Eben mit*—i.e. faces or edges of the pieces even with each other—pron. aib-en mit, or *Eben an*, even on—pron. ahn; also *Einebenig*—pron. ine-ay-ben-ich; also *Gleichstehend*—i.e. standing level with each other. Syn. Fr. for “flush joint,” *Assemblage des pièces face à face*—pron. ah-sahm-blahj day pee-ayce fahss ah fahss, or *Assemblage sans saillie*; also *En à affleurer*, or *Assemblage en bout à bout*—that is, exactly end to end, ends even with each other—pron. ehng booh tah booh; Ger. *Flächenscharnier* (*Scharnier*, a joint; also *-gewinde*)—pron. flech-enn-sharr-neer; also *Stoszscharnier* (from *stossen*, to thrust, to push)—that is, one piece is pushed forward till its face is even or level—flush—with that of the other piece. Syn. Fr. for “to make a joint not flush”—that is, with one face projecting over the other—*Désaffleurer*—pron. days-ah-fleuh-ray; also *Faire une charnière* (a joint) *avec saillies*; Ger. *ein Scharnier vorstehen machen*.—The term **Flush** is also used in another sense than the above in building construction, as in masonry, for example, in the phrase “flush the joints with mortar,” or “flush the drains well out with water”; and in this sense the derivation of the word from the German *fliessen*, and this from the Latin *fluere*, to flow, is more obvious than in the term “flush” above described. To flush with mortar is to pour or pass on to a joint mortar so thin that it will penetrate into the spaces between the pieces to be bound together. To flush with water implies a sudden accession of water to the interior of a place, as of a drain, to be washed, cleaned, or flushed out. Syn. Fr. for “a joint flushed with mortar,” *Une joint noyée dans le mortier*—i.e. drowned in mortar (from *noyer* [no-yea], to drown, or simply *Noyé avec mortier*; Ger. *ein Scharnier mit Mörtel gelegt*).

Flying Buttress, in *Architecture*. A buttress which is not joined throughout its length or whole extent to the wall of the building it is designed to support, but springs out archwise from the wall in a curve. This arrangement gives rise to some very beautiful effects in buttressed work in Gothic architecture. Syn. Fr. *Arc boutant* or *volant*; Ger. *Bogenpfiler*.

Folding Door, in *House Building*. A door provided for an opening much wider than the ordinary doors, the full width being made up in two pieces or leaves, hinged at the opposite sides and meeting in the centre when closed. *Der.* Our word fold comes from the Old English *fald*, and this from *fealden*, to wrap up, or to double some flexible substance into say half its surface by bringing the two ends or sides of the surface into contact with each other.

Syn. Fr. for "folding doors," *Porte à deux battants* or *vantaux*—pron. porrt ah deuh bah-tahn, vahn-toh; Ger. *zweiflügelige Thür* (*Flügel*, a wing)—pron. tzvy-flueh-gell-eeh-geh tuehr, or simply *Flügelthür*. Syn. Fr. for "folding table," in cabinet making, *Table brisée* (from *briser*, to break)—i.e. with surface broken by the joint (hinged)—pron. tah-bell breeze-eh; also *Table pliante*—pron. plee-ahnt; Ger. *Klappentisch* (flapped or leaved).

Foliated, in *Architecture and Decorative Work*. Parts in which the decoration consists of natural foliage conventionally treated. A well-known example is the Corinthian capital, in which the acanthus leaf is most effectively used. *Der*. Our word comes from the Latin *folium*, a leaf. Syn. Fr. for "foliation," *Feuillaison*—pron. fivuh-eel- or fweel-ah-sohng (from *feuille*, a leaf); Ger. *Blätterung* (from *Blätter*, leaves). Syn. Fr. for "foliation of a projecting or rounded part of a design," *Feuillaison d'une lobe*—pron. duehn loh-bay (*lobe*, a rounded part); Ger. *die Blätterung eines Bogen*, or *Bogenblätterung*.

Font, in *Church Architecture*. A stone erection the upper part of which contains a water receptacle used for baptism in Episcopal churches. *Der*. The word comes from *fons*, a spring, a fountain, and this from *fundere*, to pour out, as water. Syn. Fr. *Font de baptême*—pron. fohn deh bahp-tame; Ger. *Taufstein*—pron. towff-stine—from *taufen* (tow- [ow as in now] fenn), to baptize.

Footings (see text). Syn. Fr. for "wall footing," *Pied d'un mur*—pron. pee-eh duhn muuhr; Ger. *Mauerfuss*—pron. mow- (ow as in now) airr-fooss. Syn. Fr. for "foot-rule," the artificer's scale for taking measurements from, *Jauge*—pron. johje (from *jauger* [johh-jhay], to gauge); also *Verge des charpentiers* (*verge*, a rod)—pron. vairjh day sharr-pahng-tee-eh; Ger. *Mess-stock* (from *messen*, to measure, and *Stock*, a stick, a staff). *Der*. Our word foot is from the Old English *foet*. The French *pied* is from the Latin *pes, pedis*, a foot.

Footpath, in *Road Making*. Syn. Fr. *Trottoir*—pron. troh-twahr (from *trot* [troh], a way or a stretch, or from *trotter* [troh-tay], to trot, to run); also *Estrade*—pron. ess-trahd; Ger. *Bürgersteig*—pron. buuh-ger-gerr-stihg—that is, the walk or path for the citizens, the burghers of a town, villages and places of small note not being provided with this accommodation till recent times—pron. booh-eer-gare-stige.

Forcing House, in *Garden Architecture*. A structure roofed with glass—generally span-roofed (see *Roof*)—and heated with artificial heat, used to "force on" plants, flowers, and fruits. Syn. Fr. *Serre à forcer* (from *serré* [serr-eh], close, and this from

serrer, to grip, to clip close): a green- or plant-house is *Serré*; Ger. *Antreibenbaumhaus* (*treiben*, to push, to force on), or simply *Antreibenhaus*.

Foreman. The superior workman who looks after and directs the inferior workmen,—evidently a contraction of before-man, one before the others in experience, skill, or character. Syn. Fr. *Contre* or *Sous-chef*—pron. cohn-terr or sooh sheff; also *Maitre garçon*—pron. may-terr garr-son or -sohn; Ger. *Vorarbeiter*, fore or first workman—pron. fore-ahrr-bite-err; or *Obergessel*—i.e. over or head journeyman—pron. oh-berr-geh-zell; also *Werkmeister*—i.e. master of the work—pron. vairk-mice-terr, or *Werkführer*—i.e. leader of the work—pron. vairk-fueh-rerr.

Forge or Forged Iron. A synonym for "wrought" or "malleable iron." *Der*. Our word forge comes from the French *forger*, to work iron by first heating it in a (forge) fire, and then hammering it on an anvil, and this indirectly from the Latin *ferrum*, iron, the Italian for forge being nearer this—namely, *ferriere*, from which we derive our word farrier. Syn. Fr. *Fer forgée*, or *Fer battu par le marteau* (from *battre* [bah-terr], to beat, to strike), or simply *Fer battu*—pron. fare bah-tuuh; Ger. *Ausschmiedeneisen*—pron. owss-shmeed-ee-nenn-ize-enn; also *Gehämmerte-eisen*—pron. gay-hah-eem-err-tay-ize-enn.

Foundation (see text), in *Construction*. The base on which the superstructure is built and rests. *Der*. Our word comes from the Latin *fundare*, to fix firmly on a base, to lay the base of a thing, and this from *fundus*, the bottom. From this comes the French *fonder* (fohng-day), to found or lay the base of. Syn. Fr. for "foundation," *Fondation*—pron. fohng-dah-see-ohng; Ger. *Fundamentirung*—pron. foonh-dah-ment-eer-ohng; also *Gründung* (*Gründ*, the ground, the earth or soil)—pron. grooh-een-duuhng. Syn. Fr. for "to found a wall," *Fonder un mur*—pron. fohng-day uuhn muuhr; Ger. *eine Mauer gründen*—pron. ine- (ine as in mine) eh mow- (ow as in now) airr grooh-eeen-denn. Syn. Fr. for "to dig the foundation," *Creuser les fondements*—pron. kruuh-say lay fohngd-mahng; Ger. *die Gründung graben*. Syn. Fr. for "foundation stone," *Pierre de fondement*; Ger. *Gründungsstein* or *Gründstein*. Syn. Fr. for "foundation wall," *Mur de fondement*, or simply *Fondement*; Ger. *Grundgemäuer* or *der Fundament*. Syn. Fr. for "concrete foundation," *Fondement en béton*—pron. bett-ohng; Ger. *Grobmörtelgründung*. Syn. Fr. for "foundation (timber) piles," *Fondement basse-palée*; Ger. *Fundamentgründpfahlung* or *-gründplatte*.

Four-centred or Tudor Arch. Syn. Fr. *Arc avec quatre cintres*; Ger. *englischer*

Spitzbogen, or *Spitzbogen mit vier Mittelpunkten*.

Frame—Framing (see text). *Der.* Our word comes from the Old English *fremman*, to shape, to construct. *Syn. Fr.* for “to frame on a truss,” in carpentry, *Assembler une ferme*—pron. ah-sahm-blay uuhn fairm; *Ger. eine Gesparre zulegen*—pron. ine-eh geh-sparr-eh tzooh-lay-genn. *Syn. Fr.* for “wood framing,” *Charpenterie*—pron. sharr-pang-terr-ee or sharr-pahng-tree; *Ger. Holzgestell (Gestell, a frame, a trestle)*. *Syn. Fr.* for “iron framing,” *Charpente en fer*; *Ger. Eisengestell*. *Syn. Fr.* for “door- or window-frame,” *Chassis de porte or de fenêtre*—pron. shah-see; *Ger. Thur- or Fenster-futter*.

Fresco Painting, for Wall Decoration. The term means literally “painting designed to stand the exposure of the open air or the atmospheric influences, as damp,” and takes its name from the Italian phrase *al fresco*, in the cool open air, in the open. It may be described as the opposite method of ordinary painting on wall surfaces, in which the plaster is first set and dried, while in fresco work the painting is done when the plaster is wet, so that only as much plaster must be put on as the painter can cover at a time, the colour being absorbed by the plaster and both setting together. This peculiarity of necessity requires a quick and sure style of painting, as no alteration can be made after the strokes or artistic effects are put in. *Syn. Fr.* for “fresco painting,” *Peintre à fresque*—pron. pehng-terr ah fresk or fraisk; *Ger. Freskemaleri*—pron. fress-kay-mahl-err-ee.

Fret (see text). *Der.* Our word is from the Old English *fretan*, to vex, to gnaw, to eat: in a constructive sense, cut away. *Syn. Fr.* for “fret work,” in architecture, *Ouvrage en frête or à frette*—pron. oohe-rahje ahng frait, frett; also in woodwork, *Bois découpée* (cut wood); also *Ornée des grecques*, or simply *Grecque*—pron. graik or grekk; *Ger. Griechischewerk or Steingebrochenenwerk*—literally “broken or cut-up stonework.”

Friability, in Stone and Brick. That dangerous characteristic in these materials which render them liable to crumble away and break up or disintegrate under pressure, or the inner action of the air influences. *Der.* Our word comes almost without change from the French *friabilité*, and this from the Latin *friabilis*, and this again from *friare*, to crumble, rub or break away. *Syn. Fr. Friabilité*—pron. free-ah-beel-ee-tay; *Ger. Zerreiblichkeit (reiben [ribe-enn], to rub down, to grate, to powder)*—pron. tzerr-ribe-leegh-kite; also *Bröcklichkeit*—pron. broh-eeek (from *bröcklein* [broh-ee-kine], to crumble).

Frieze, in Architecture. The flat part of the entablature of an order, which lies

between the architrave and the cornice. In wall decoration the term denotes a flat band more or less ornamented running round the wall for a greater or less distance below the cornice of the room. *Der.* Uncertain: the ordinary term frieze, denoting a coarse woollen cloth, derived from the French *frise*, a woollen fabric. *Syn. Fr.* for “frieze,” *Plateband*—pron. plahte-bahnd; also *Frise*—pron. freeze; *Ger. Friess*—pron. freece; also *Frieze*—pron. freeze-eh.

Frosted Work (see text). *Der.* Our word frost is but an inverted form of the Old English *forst*, and this from *freesan*, to freeze. *Syn. Fr.* for “frosted work,” in masonry, *Maçonnerie à glacée*, or simply *glacée* (from *glacer* [glah-say], to freeze); *Ger. rauhes Steinwerk* (from *Rauh*, raw, coarse, rough, uneven); also *Frostigkeit- or gefrostetes Steinwerk, or Steinwerk mit rauher Oberfläche*—literally “stone worked with a rough top or over surface.”

Fulness. A term sometimes used in constructive work to denote that a part of a body is not to be made too small or scripped in size—to use a common phrase, to “give it a little fulness”—as in a moulding to give it a little more projection. *Der.* Our word “full” is precisely the Old English *full*, meaning filled up, having as much as it ought to have. *Syn. Fr.* for “fulness,” *Trop-plein*—literally “too full” (*trop* [troh], too much, and *plein*, full)—pron. troh-plahng; *Ger. Fulle*—pron. fool-eh; also *Ober- or Überfülltein or Überfüllung*.

Funnel, Stove or Smoke. A synonym for a stove chimney-pipe. In the ordinary meaning of the term, a funnel is an appliance to aid the pouring of a liquid from one vessel to another. A smoke funnel is the converse of this, by which the smoke can pour out of a stove or furnace. *Der.* Our word comes from the Latin *infundibulum*, a filling pipe or tube, and this from *infundere*, to fill in. *Syn. Fr.* for “stove funnel or pipe,” *Cheminée en tôle (tôle, sheet iron)*; *Ger. runde Eisenröhre*, iron smoke tube or pipe; also *Eisenblechkaminröhre*. *Syn. Fr.* for “funnel of a waterspout or eaves down-pipe,” *Cavette*—pron. kah-vett; also *Entournoir d'une tuyau de dégorgeement*—pron. en-tohr-nwahr deunn twee-yoh deh day-gorrij-mahn (*Entournoir*, a funnel for pouring liquids through; *Ger. der Trichter eines Dachfall-röhre (Trichter, a funnel, from trichtern [treck-tern], to pour through a funnel tube)*).

Furnace. A structure inclosing a fire-place, with fire bars, closed doors, ashpit, flue, uptake, and high chimney, in which combustion of greater or less intensity can be maintained. *Der.* The word is from the Latin *furnax, furnus*, an inclosed fireplace. *Syn. Fr. Fourneau, fournaise*—pron. foohr-noh, -naize, or *Four*; *Ger. der Ofen*—pron. oh-fenn.

Furnish. A term frequently used in construction in the sense of providing and fitting up. *Der.* The word comes from the French *fournir* (foohr-neer); Ger. *Ausrüsten*—pron. owss-ruet-sten (from *rüsten*, to fit out); also *Ausmöbliren*—pron. owss-moeh-bleer-enn (*möbliren*, to furnish). Syn. Fr. for "furnishing," *Ameublisement*—pron. ah-muuh-bleess-mahn; Ger. *Möblirung*—pron. moeb-leer-oong.

Furniture. A term applied to the fittings of a door or a window lock; in its more extended sense to the domestic fittings of a house, as chairs, tables, beds, etc. The derivation of the word is the same as that of furnish. Syn. Fr. *Ameublement*—pron. ah-muuh-bell-mahn (from *ameubler* [ah-muuh-bleer], to convert or make into moveables, or simply *Meubles*—pron. muuh-bell (from *meubler*, to furnish); also *Meublants*—pron. muuh-blahn; Ger. *Hausgeräth*—pron. hause-geh-rate (*Geräth*, implements, utensils); also *Hausausrüstung* (house fittings)—pron. house-owss-ruess-toong; also *Meubel*.

Gallery. That part of a building which is generally of greater length than width, and is raised to a greater or less height above the level of the floor of the room in which it is placed; or it may be external to the room, as passing round one side of it or surrounding it. It is distinguished from a corridor, which is an apartment also of greater length than width, by the corridor being on the same level as the floor of the apartment with which it is connected. The term has, however, a wide application. *Der.* It is from the French *galerie*, or the Italian *galeria*. Syn. Fr. *Galerie*—pron. gawhl-ree or gall-err-ee; also *Passage*—pron. pah-sahje; or *Corridor*—pron. koh-ree-dorr; Ger. *Galerie*—pron. gall-err-ee; also *Säulenhalle*—"a pillar hall," from galleries being generally supported by pillars or columns—pron. sah-eel-enn-hal-leh; also *der Gang*.

Gap, in Construction. A term synonymous with opening, a break in the continuity of a surface or body, as of a wall. It is synonymous also with a void through which daylight can be seen; hence the French synonym. *Der.* Our word comes directly from the Icelandic *gap*, a mouth. Syn. Fr. *Jour*—pron. jooohr; Ger. *die Oeffnung*—pron. dee-oh-eef-nuung.

Garden, in House Architecture. The plot of land in connection with the house laid out in plots for the cultivation of shrubs, flowers, fruit trees, and vegetables. *Der.* Our word is either from the French, or the Old English *geard*, a space inclosed. Syn. Fr. *Jardin*—pron. jharr-dahng; Ger. *der Garten*.

Gib, in Carpentry Work. A mechanical appliance used in connecting the foot of a

king-post with a tie-beam, etc., in which a strap and key are used to keep the joint in place. The gib is of wrought iron, from $\frac{1}{4}$ to $\frac{3}{4}$ in. thick, according to the dimensions of the beam, formed somewhat thus [], so that the ends clasp the timber between them. Two gibs are used back to back, thus [], the key or cottar or iron wedge being driven in between them. Syn. Fr. for "gib," *Goupille*—pron. gooh-peel; also *Clavette*—pron. klah-vett. These terms properly denote the "pin" or "key" used either with or without the gib or gibs. The term *pince* (pahngse), a "clip," would give the synonym for gib—thus, *Clavette pince*, or *Goupille pince*, or *Pince à clavette*. Syn. Ger. *Zwickenkeil*, clip wedge (*Zwicke* [tzveek-eh], a clip); also *Schlüssel*, which simply denotes a key or cottar; also *Hakenkeil* (*Haken*, a hook, a clasp).

Girth. One of the elements required in calculating the number of cubic feet in a tree. It is the measurement taken by passing a measuring tape round the tree-bolt at different points, so as to deduce the average diameter and area of cross-section. *Der.* The word is from the Old English *gyrdan*, to bind by tying round a body. Syn. Fr. *Sangle*—pron. sahng-gell (from *sangler* [sahng-glai], to girth, to tie round); Ger. *Gurt*—pron. guuhrt.

Glazier's Putty. The plastic substance used, when in the soft state, as in making the joint good between the edges of a pane of glass and the sash-bars of a window. It adheres firmly to both wood and glass, and by exposure "sets" or hardens as hard as a stone—harder and more difficult to break up than some kinds of stone. It is made by working up whiting or powdered chalk with sweet oil to the proper consistency. Syn. Fr. *Mastic du vitrier*—pron. mah-steek duuh veeh-tree-eh, or simply *Mastic*; also *Potée*—pron. poh-tay; Ger. *Glaserkitt* (*Kitt*, cement)—pron. glah-sair- or sare-keet, or simply *Kitt*; also, more definitely, *Kitt machen mit Kalk und Oel*.

Gold Leaf, in Gilding. The metal gold beaten out to a thinness inconceivably fine,—to thousandths parts of an inch,—and laid in square between the leaves of a book, to be taken out and applied to the surface to be gilt, this being previously covered with a cementing liquid or size. *Der.* Our word gold is the same as the Old English, or it may come from the Old English word *gealew*, yellow. Syn. Fr. for "gilders or gold leaf," *Or d'applique* or *de mosaïque*—pron. orr dah-pleek, deh moh-zah-eek; Ger. *Blattgold*, leaf gold, or *Malerengold*, painting gold—pron. mah-lair-enn-golt; also *Büchgold*, book gold (see definition of the term above)—pron. boo-eek-golt. Syn. Fr. for "Dutch metal" or "imitation gold leaf" or "gold tinsel" (a cheap substitute for the true gold leaf,

made of an alloy), *Oripeau*, tinsel—pron. orr-ee-poh; also *Or faux en feuilles*, false or sham gold in leaves—pron. orr fohze ahng fuuh-eel or fweel; also *Clinguant*, tinsel—pron. klahng-kahng; Ger. *Flittergold* (from *flittern* [fleehtairn], to glitter, to spangle, *flitter* [fleehtairn], tinsel); also *Goldstöff* (*Stoff*, stuff, substance); also *Metallgold*, or *Unachtgold* (*unacht*, sham, false)—pron. uuhn-agh- (gh guttural, see Dissertation) teh-golt. Syn. Fr. for “gold size,” the cementing substance laid on the surface to be gilt, *Cire de doreur* (wax of the gilder)—pron. seer deh doh-ruuhr, or *Paté de doreur*—pron. pah-tay; Ger. *Blattgoldfirniss* (gold-leaf varnish), or *Blattgluhwachs* (from *gluehen*, to glow, to make red, and *Wachs*, wax).

Good, To make. A phrase often used in construction and in specification, denoting that where a part has been interfered with in order to get at or reach another part requiring repair or examination, the whole is to be put back into its original condition, as, for example, in opening up the soil to reach a defective drain. After the repair has been made, the earth is to be replaced as before, and all made good. *Der.* The word good is from the Old English *god*, virtuous, worthy, and is applied in the sense of proper, correct, workmanlike. Syn. Fr. for “to make good,” *Faire propre* or *correcte*; also *Ajuster comme avant*; Ger. *Richt machen*, or *Einrichten*; also *Berichtigen*, or *Besser-* (correct) *machen*.

“Got out of the line.” A phrase used to indicate that a body, as a structure or part of a structure, has left the line on which it was originally laid down, set up, or adjusted, as a wall which becomes inclined, a beam which goes from the level, a panel or board which warps, etc. Syn. Fr. *Une poutre* (for example) *qui se gauchit* (from *gauche* [gosh], left, or *gaucher* or *-ère* [goh-shay, -shairr], left-handed, or *gaucherie* [gosh-err-ree or gosh-ree], awkwardness); also *Hors de la niveau*, out of the level—pron. horr deh lah nee-voh; Ger. *zum Beispiel*—literally “to the by-play,” for our phrase “for example” (from *spielen*, to play), or *eine Balken schief sein*, or simply *Schief sein*—that is, to be oblique, on the slope, off the level; also *zum Beispiel aus der schnur*, out of the level.

Gradation of Colours, in Painting. A term used to denote the way in which colours blend by imperceptible degrees into one another, or by which a colour is toned or lightened gradually down—absence of abruptness. *Der.* Our word comes from the Latin *gradatio*, and this from *gradus*, a step—proceeding by regular, not by abrupt steps. Syn. Fr. for “colour gradation,” *Echelle de couleur*—pron. eh-shaill or -shell day kooh-luuh; Ger. *Farbenstufenfolge*—literally “colour step following” (*Stufe*, a step, and *folgen*, to follow).

Grass Turf or Lawn Covering, in House Garden Work. Syn. Fr. *Gazon*—pron. gah-zohng; also *Tourbe*—pron. toohrb (this is the synonym for peat, or “turf” in the sense of a combustible); Ger. *Rasenplatz*—literally “turf place”—pron. rah-sane-plahtz. *Der.* Our word grass comes from the Old English *gras*, herbage, allied to Sanscrit *gras*, to devour.

Grate, Fire- (see text). The box or receptacle for holding the fuel to be burned in domestic heating. Syn. Fr. *Grill*—pron. greel or greeh, or *Grille*; Ger. *Fuerrost*—pron. fuuh-air-rohst, or *Brandrost*—pron. brahnt; also simply *Rost*.

Gravel, in Materials. Small hard sandstones, more or less rounded by the action of water, deposited in strata of greater or less depth, and in large masses, which, when opened up and dug into, are termed gravel pits, chiefly found in alluvial soils. *Der.* Our word comes from the French term or the German. Syn. Fr. for “gravel,” *Gravier*—pron. grah-vee-ay; Ger. *Grobe*—pron. groh-bay, or *Grobesand*; also *Kies*. Syn. Fr. for “gravelly soil,” *Sol* or *Terrain graveleux*—pron. sohl, tair-ahng grahv-ell-uuh; Ger. *kiessige Boden*.

Ground, Building or Plot (see text). A parcel or extent of land set aside for building on. *Der.* Our word comes from the Old English *grund*, the covering of the earth. Syn. Fr. *Terrain* or *Sol pour l'érection des bâtiments*; Ger. *Baustelle* or *Bauplatz*.

Harden (to let plaster set or). Syn. Fr. *Laisser endurcir le plâtre*—pron. lace-say or lah-eese-eh ahn-duehr-seer leh plah-terr; Ger. *Gyps härten*—pron. gipps hairr-tenn. Syn. Fr. for “hardened plaster,” *Plâtre trempé*—from *tremper*, to soak (out), or *Plâtre endurcée*; Ger. *gehärteter Gyps*. Syn. Fr. for “hardwood,” *Bois dur*; Ger. *hartes Holz*.

Hardware, in Materials. The goods of an ironmonger, as locks, hinges, etc., are so termed. *Der.* Our word hard comes from the Old English *heard*, firm, compact, close in grain. Syn. Fr. for “hardware,” *Quincaillerie*—pron. kaihn-kahil-yer-ree; also *Clincaillerie*—pron. klaihn-kahil-yer-ree; Ger. *Eisenwaaren* (iron wares)—pron. eye-zenn-vah-ren, or *Kurzwaaren* (short ware).

Heating. A synonym for “warming.” A term applied in construction to the warming of the air in domestic and public buildings. *Der.* Our word comes from the Old English *hate*, to kindle, and by kindling of a combustible to give the sensation of warmth. Syn. Fr. for “heat,” *Calorique*—pron. kah-lo-reek; also *Chaleur*—pron. shah-leuhr, or *Chaud*—pron. show; Ger. *Wärme*—pron. vair-meh; also *Hitze*—pron. hit-seh. Syn.

Fr. for "heating," *Chauffage*—pron. show-fahj; the adjective is *Chauffant*—pron. show-fahn; Ger. *Heizend*—pron. hite-tsend. Syn. Fr. for "heating apparatus," *Appareil chauffant*, or *Appareil de chauffage*—pron. ah-pah-rail; Ger. *Heizapparat*—pron. hites ah-parr-ah, or *Apparat zum Heizen*—pron. tsoom hite-sen. Syn. Fr. for "gas-heating apparatus," *Appareil chauffant au gaz*; Ger. *Gasheizapparat*.

Hedge, in *Garden Work*. A fence generally of hawthorn plants, or, as they are usually termed, "quicksets"—so called from the rapidity with which they grow, sometimes "thorns" forming a thick, close fence, a capital shelter against cutting winds, and from dust from roads. Hedges are sometimes formed of hornbeam plants, which, like the beech, from their habit of not shedding the dead leaves till spring, form an excellent shelter from the keen cutting winds of that season. Privet is also used. *Der*. Our word hedge comes from the Old English *hege*, a line or thicket of bushes dividing fields. Syn. Fr. for "hedge," *Haie*—pron. hay or hah-ee-yeh; Ger. *Hecke*—pron. heck-eh. Syn. Fr. for "live or quickset hedge," *Haie en vert* (green hedge), or *Palissade en vert*—pron. pah-lee-sahje; also *Haie vive*—pron. veeve; Ger. *Liebegrüner*—pron. -gruuh-een-air; also *die Liebendigehecke* (living hedge)—pron. lee-ben-deeg-eh-heck-eh.

Heightening of a wall. Raising or elevating it. Syn. Fr. *Relevé* or *Rehaussée d'un mur*; Ger. *Mauererhöhung*—pron. mow-err-err-hoeh-oong.

Hoisting Apparatus (see text). Syn. Fr. *Grue de charge* (load or weight crane)—pron. gruuh day sharhje, or *grue de chargement* (loading)—pron. sharhje-mahng; Ger. *Ladungskrahn* (loading crane)—pron. law-duuhng-krann. Syn. Fr. for "hoisting," *Guindage* (from *guinder* [gahng-day], to hoist, lift up, elevate)—pron. gwheen-dahje; Ger. *Aufwindung*—pron. owff-veen-duuhng.

Holding Good. A phrase used sometimes in construction to indicate that a part secured to another, as by nailing, cementing, etc., still remains, that the securing medium still remains intact. Syn. Fr. *Perme*—pron. fairrm; also *Bonne prise*—pron. bonn preeze; also *Retenir en sûreté* or *surement*—pron. reh-ten-er ahn suuhr-tay, suuhr-mahn; Ger. *Festbindung*—pron. fesst-bin-doong, or *Fest haltend*—pron. fesst hahl-tend; also *Sicher haltend*—pron. zich-err hahl-tend.

Hollowing (see text) or **Hollowing Work**. Syn. Fr. *Echancrure* or *Ouvrage en creusée*—pron. eh-shahn-kruehr or oov-rahj ahn kreu-zay; Ger. *ausgehöhletes Werk*.

Horizontal, in *Construction*. A term synonymous with level or dead level—the opposite of vertical. *Der*. From the Greek *horizon*, a boundary circle, applied to the circular line or apparent line which divides

the earth's surface from the sky, and which is visible all round any point at which the observer stands. This word comes from *horizein*, to bound or inclose. Horizontal means a line parallel to or coincident with what is called the horizon, or otherwise the sensible horizon. The earth's surface, a line joining two points of the horizon, being practically, from any distance within our ken or reach, level, any line parallel to this is horizontal; just as conversely any line at right angles to this is termed a vertical line. Syn. Fr. *Horizontal* (same word as ours)—pron. hor-ree-zon-tahl; Ger. *Horizontal*; also *Wagerecht* (right or straight way)—pron. vah-geh-recht, or *Wasserrecht*—pron. vahs-serr-recht, the line which water at rest takes—a dead level. Syn. Fr. for "horizontally laid, made, or constructed," *Fait horizontalement*, or simply *Horizontalement*; Ger. *horizontal machen*.

Hose, *Garden*. A water-pipe for slaking lime, watering grass, lawns, roads, etc. A pipe or tube made of flexible material, as leather, prepared canvas, or indiarubber, so that, being pliable, it may be led in any direction, at any angle, round bends or curves. *Der*. Our word is precisely the same as the Old English *hose*, a knitted stocking, from which the word has been directly borrowed, as a piece of a hose is similar to a piece of a stocking leg—for hose originally did not possess feet, like our modern stocking—they encircled the leg only. Syn. Fr. for "hose of leather," *Tuyau de cuir*—pron. twee-oh day kweehr; Ger. *Ledernöhre*—pron. ledd-err-neh-roh-eer-eh; also *Schlauch* (a leather bag or pipe)—pron. shlough (uch guttural, shlou as in now); also *Spritzledernöhre*, leather squirting pipe (*Spritz*, a syringe, *spritzen* [spreet-tzenn], to syringe, to squirt). Syn. Fr. for "hose of vulcanised indiarubber," *Tuyau en caoutchouc vulcanisé*—pron. twee-oh ahng kah-ootch-ook vuuhl-kah-nee-zay; Ger. *Gummielastiscum Spritzenöhre*—pron. guuhm-mee-ale-ahss-tee-kumm.

Hotplate (in a cooking or kitchen range). A plate, or a rack which often takes the place of a plate, on which dishes can be placed to warm or their contents to be kept warm till they are served. Syn. Fr. *Cuisinière*—pron. kweeh-seen-ee-air; Ger. *Kochöfen-warmplatte*, or *Platte für warmen*.

House, Furnished. Syn. Fr. *Maison garnie*—pron. may-sohn or -sohng garr-nee, or simply *Garni*; also *Hôtel* or *Petit hôtel meublé*—pron. peh-tee hoh-tell muuh-blay.

Hydraulic Lift or Hoist. A hoist in which the working power is that of water pressure, the water acting in various ways upon a ram or long cylindrical piston working in a cylinder, to the upper end of which the cage or platform is connected. As the ram rises or falls in the cylinder, according as the

valves are worked, the cage rises or falls with it; or, in place of the cage being directly connected with the ram, this latter may be arranged to act upon lifting chains which raise or drop the cage. There are many kinds of hydraulic lifts, but they are all based on the principle of the Bramah press—the water acting upon a ram or piston working in a cylinder, to which the water is applied, and from which it is released by various forms of valve gear. Syn. Fr. *Élévateur hydraulique*, or *Élévateur à force* or *pression hydraulique*; Ger. *Elevator mit hydroische Kraft*.

Icehouse or Ice-cellar. An apartment, either above or under ground, specially arranged in relation to its door of access, drainage, etc., and constructed with non-conducting walls, base and cover, so that there is little loss from melting—the object being to keep the temperature of contents as uniform as possible. Many most ingenious arrangements of icehouses have been introduced from time to time; but, so far as large mansions, etc., are concerned, there is less necessity for an icehouse being part of the establishment now than formerly—the ice-selling and ice-making companies supplying any quantity as desired, and also receptacles or chests in which the house supply can be kept with a minimum loss. Der. Our word ice comes from the Old English, as well as the Icelandic, *is*, frozen water, or from the German *eis*, pronounced exactly like our word. Syn. Fr. *Glacière*—pron. glah-see-air; also *Souterrain à glace* (underground ice-room)—pron. soo-tair-aihn ah glass; Ger. *Eiskeller*—pron. ice-kell-err; also *unterirdische Eiskammer*—pron. oohn-terr-eer-dish-eh ice-kahm-mer.

Impact. A term used in construction synonymous with a blow or driving, as in the case of the monkey or heavy weight of a pile-driver, or of a sledge-hammer, in driving a stake into the ground, or in breaking up a stone, etc., with a heavy hammer. Der. Our word comes from the Latin *in* and *pactere*, *pactum*, to drive, driven. Syn. Fr. *Impact*—pron. aihm-pahkt; also *Choc* (pronounced same as our word shock, which, in fact, comes from this French word); Ger. *Impact*—pron. im-pahkt; also *Stoss* (from *stossen*, to thrust, to push).

Imperfect. A term often used in specification of construction, etc., to denote work badly done, defective—materials not of good quality. Der. Our word comes from the Latin *in* and *perfectus*, finished (past participle of *perficere*, to finish)—i.e. not finished. Syn. Fr. *Défectueux* (defective)—pron. day-feck-tue-eh; or, following the Latin sound, *Imparfait* (imperfect)—pron. aihm-parr-fay; Ger. *Defektiv*—pron. day-

fehkt-eef; also *Unvollkommen* or *-ständig*—pron. oohn-foll-komm-en, -stenn-dich. Syn. Fr. for “imperfect work,” *Ouvrage imparfait*; Ger. *unvollständige Arbeit*. Syn. Fr. for “imperfect materials,” *Matériaux imparfaits* or *Défectueux*; Ger. *unvollkommene Materialien*. Syn. Fr. for “imperfection,” *Défet*—pron. day-fay; Ger. *Defekt*.

Incrustation, in Stone or Brickwork. When exposed to wet percolating through the joints, as in bridge work from the roadway above, the limy matters are carried through in suspension, and remain incrustated more or less at the joints. In defective brickwork or plaster, salts present in the lime of the mortar exude and get fixed in an efflorescent condition on the surface. There are other cases in which this may happen, as in some kinds of stone ultimately leading to decay. To prevent decay, in some cases an artificial incrustation is resorted to, the material being covered, incrustated over with a chemical or other composition, to preserve it. The word *encrustation* is sometimes used as synonymous. This prefix *en* is erroneous, in being the correct one, as is seen from the Latin word from which our word is derived—*incrustare*, to cover over with. Syn. Fr. *Incrustation* (same word as ours)—pron. aihn-kruess-tah-seeon; Ger. *Ueberfang*—pron. ueh-berr-fahng.

Indentures, Articles of, in Building Construction. The agreement entered into between a master and an apprentice binding the latter to the former, and stating the conditions of servitude on the one hand, and the duties of the master in his relation as a teacher of the “mysteries of his craft” on the other. Der. Our word curiously has its origin in the word “indent” (which see in text),—to which matter there given may be added, that while the Latin word from which it comes means “without teeth” (*indentatus*), a converse meaning is given to the English word—to give teeth, as a jagged, crushed appearance, tooth-like. The term indenture was given to a legal agreement which was written on two sheets or leaves of parchment made in duplicate from one skin, the edge of which was indented—that is, made jagged, saw-tooth-like, so that one could be joined to the other—the projections of one passing into the hollows of another. Syn. Fr. *Brevet d'apprentissage* (*brevet*, a warrant, a writ, a patent, a legal document)—pron. brev-eh dah-prahn-tee-sahj; Ger. *Lehrcontract* (*lehren*, to teach)—pron. lairr-konn-trakkt; also (and usually) *Lehrbrief*.

Insecure. A term in construction synonymous with “unsafe”—a wall not well founded, a beam not well fixed, a truss badly put together. Der. Our word comes from the Latin *in* and *securus*, and this last

from *se* and *cnrus*, care—free from care, from danger. Syn. Fr. *Incertain*—pron. ahng-sair-tahng, or *En danger*—pron. ahng-dahng-jhay; also *N'est pas en sûreté*—pron. nay pah-zahng suuhr-tay, or *Exposé*—pron. aix-poh-zeh; Ger. *Unsicher* (not sure)—pron. uuhn-see-kairr; also *Ungewiss* (not certain, not fixed)—pron. uuhn-gay-veece.

Ironmonger. The tradesman who sells the iron fittings and furnishings for house construction, tools, etc., and what is called hardware generally. Syn. Fr. *Marchand de fer*—pron. mahr-shand deuh fairr; also *Quincallier*—pron. kaih-kall-yea; Ger. *der Eisenhändler*—pron. ize-enn-hend-lerr.

Ivory. The hard white bony substance obtained from an elephant's tusk, capable of a high polish, used in inlaying and carved work in cabinet making. *Der.* Our word comes from the French *ivoire*, and this from a corruption of the Latin *ebur* (gen. *eburis*), an elephant's tooth or tusk. Syn. Fr. *Ivoire*—pron. eev-wharr; also *Eburne* (here the Latin origin is seen)—pron. eh-buuhrrn; Ger. *Elfenbein*—pron. ell-fenn-bine.

Japanning. The art of lacquering or varnishing with a material of a deep intense black, and which takes a polish or brilliancy almost perfect. We have borrowed the term from, as we have tried to imitate the work of, the Japanese, who seem alone to possess the secret of the method of doing this class of work in the highest style of perfection. Syn. Fr. *Vernissure à la laque* (lacquer)—pron. vair-nee-suurr ah lah lakk, or *Laquage en noir*—pron. lah-kahje ahng nwahr; also *Vernissure au four* (four, a furnace, an oven, referring to the fact that the articles japanned are subjected to heat)—pron. oh foohr; Ger. *Japaniren*—pron. jhah-pah-neerr-enn; also *Asphaltlacken machen*, referring to the bitumeniferous substance used in the lacquer for japanning.

Joining (see text). Syn. Fr. (for the general term) *Combinage, Habillage, Unissage, Joindage*—pron. kohm-bee-nahj, hah-beel-yahj, ueh-nee-sahj, jwahn-dahj; Ger. *Aufsetzen, Ansetzen, Gewinde machen, Charnière machen*. There are various kinds of joining in construction; the following are some of the leading synonyms. Syn. Fr. for "joining of timber," *Assemblage de bois*—pron. ah-sahm-blahj deh bwahr, or *Assemblage des poutres en bois*—pron. pooh-terr; Ger. *Verbindung von Holzbalken*—pron. ferr-bin-doong fonn holts-bahl-kenn, or *Holzbalkenbindung*. Syn. Fr. for "joining beams," by scarf joints, *Encastrement des poutres*—pron. ahn-kass-terr-mahn; Ger. *Balkeneinblattung*. Syn. Fr. for "joining by angular notches," *Entaillure des poutres*—pron. ahn-tahl-yuehrr; Ger. *Balkenzackenschnitt*. Syn. Fr. for "joining by screw-bolts," *Raccordage à*

vis (ah-vee) *pour les poutres*; Ger. *Balkenschraubenverbindung*. Syn. Fr. for "joining two beams end to end or in the direction of their length," *Assemblage de deux poutres bout à bout* or *railonge*—pron. ah-sahmm-blahj deh deuh pooh-terr booh-tah booh, ray-lonzh; Ger. *Verlängerung zweier Balken*—pron. ferr-leng-err-oohng tzvi-err bahl-ken. "Joints" in construction are known by different names; the following are a few of the leading synonyms. Syn. Fr. for "a keyed- (scarf) joint" (see Key), *Joint à clé*—pron. jwahrt ah klay; Ger. *Zapfenverbindung*. Syn. Fr. for "a lap- (half-lap) joint," *Joint accouvert*; Ger. *überinandergelegte Balken*. Syn. Fr. for "nailed joint," *Joint à clous*—pron. klooy; Ger. *Scharniernagelung*—pron. sharr-neerr-nah-geh-loong. Syn. Fr. for "longitudinal joint," *Joint longitudinale*; Ger. *in die Längegelegtes* or *langenfüßiges Scharnier*. Syn. Fr. for "diagonal joint," *Joint diagonale*—pron. jwahrt dee-ah-goh-nahl, or *Joint à onglet*, a mitre (which see)—pron. ah ohn-glai; Ger. *Gehrungsscharnier* (gehrung [gair-roong], oblique direction). Syn. Fr. for "concealed joint," *Joint à cachée*—pron. kah-shay; also *Joint dérobé* or *abrevoir* (*abri*, shelter)—pron. day-roh-bay, ah-breuv-wahr; Ger. *verborgenes Scharnier*—pron. fair-borr-genn-ess, or *heimliches Scharnier*—pron. hime-lich-ess. Syn. Fr. for "rebated joint," *Joint feuillé* or *saillant*—pron. feul-yea, sahl-yahn; Ger. *Scharnier mit Ueberplatte*. Syn. Fr. for "square joint," *Joint carrée*—pron. kahr-ch; Ger. *rechtwinkeliges Scharnier*. Syn. Fr. for "tenon joint," *Joint à tenon et mortaise*—pron. jwahrt ah tay-nohn eh more-tayze; Ger. *Zapfenscharnier* (Zapfen [zap-fenn], a pin, peg, or tenon); also *die Verzäpfung*—pron. ferr-tzapp-foong. Syn. Fr. for "tongue of a joint," as a tenon or feather, *Langue d'une charnière* or *joint*—pron. lahn-gette duehn sharr-neerr; Ger. *Scharnierfeder* or *-zunge* (a tongue)—pron. tsoon-geh. Syn. Fr. for "joint pointing of a brick wall," *Jointoyement plat un mur en briques*—pron. jwahnng-twoy-mahn plah-tuuh muhr ahn breek; Ger. *Ziegelstein mur ebener ausfüßung*. Syn. Fr. for "vertical or standing joint," *Charnière* or *Joint verticale*, or *Joint montant*; Ger. *die stehendes Scharnier* or *-stoss*. Syn. Fr. for "out of joint," *Sorti de l'emboîture* (from *emboîter* [ahm-bwah-tay], to joint)—pron. sorr-tee day lahm-bwah-tuehr; also *Dehors de mortaise*—pron. deh-hoar day morr-taize; Ger. *Aussenzapfenloch* (Zapfen, a mortise). Syn. Fr. for "jump joint" or "butt joint," *Bord* (edge) *obtus*—pron. borrd obb-tueh; Ger. *stumpfe Kante* (*stumpf*, obtuse, Kante, edge)—pron. stoomp-feh-kann-tay.

Juxtaposition. A term used in building to denote the close contiguity of one part to another. *Der.* Our word is from the

Latin *juxta*, near or near to, and *positum*, placing. Syn. Fr. (same as ours)—pron. jhuex-tah-poh-zee-see-on; Ger. *die Nebeneinanderstellung* (neben, near).

Keen Edge, in Tools. Used to indicate that the edge of a cutting tool, as of a chisel, is very sharp. *Der.* Our word comes from the Old English *cene*, eager. Syn. Fr. for "keen," *Aigu*—pron. eh-guuh, or *Aiguisé*—pron. ah-gweeze-eh; also *Acéré*—pron. ah-sair-eh, or *Pénétrant*—pron. pain-eh-trahng; Ger. *Scharf*—pron. sharrf, or *Schneidend*—pron. shnide-end; also *Spitzfindig*—pron. speetz-feen-deehg.

Kennel, Dog, in House and Farm Architecture. A box or small house or cot usually made of timber, but in some cases, as on the estates of the rich interested in field sports, both in point of dimensions and fittings quite equal to any of the domestic working apartments of the mansion. *Der.* Our word kennel, applied also in quite another direction, as indicating a channel or open gutter at the side of a street, comes from the French synonym or from the Italian *canali*, and both from the Latin *canis*, a dog. Syn. Fr. for "dog kennel," *Chenil*—pron. shay-or shenn-eel; Ger. *die Hundshütte* (dog's hut)—pron. hoohts-huuh-eett-eh, or *Hundstall*—pron. hooht-stall.

Key (see text). Syn. Fr. for "key" (as synonymous with "spanner" for tightening up screw-bolts), *Clef du serrage*—pron. klay or claihff duuh sairr-ahje; Ger. *Anziehen-schlüssel*—pron. ann-zee-henn-shluuh-eece-ell. Syn. Fr. for "key bed," the groove cut in the face of a beam to receive the key or wedge used to connect or join two beams, as in scarf joints keyed or wedged up, *Lit du clavette* or *coin*—pron. lee duuh klah-vett, kwahng or kwahn; also *Rainure* or *Portée du clavette*—pron. ray-nuuh; Ger. *Schlüsselrinne* or *-grube*—pron. reen-eh, gruuh-beh; also *Keilrinne* or *-grube* or *-nuth* (wedge joint)—pron. kile-nuuh; also *Schlüsselbett* (key bed) or *Keilbett*. Syn. Fr. for "screw key," synonymous with "spanner" (see text), *Tourne-vis*—pron. toohrn-vee (from *tourner*, to turn round); Ger. *Schraubenträger* (from *tragen*, to carry round) or *-dreher* (from *drehen*, to lead, to draw, to twist round). Syn. Fr. for "to key," *Claveter*—pron. klahv-tay; Ger. *Festschlüsseln* or *-keilen*, or simply *Schlüsseln* or *Keilen*. Syn. Fr. for "keying," *Clavetage*—pron. klahv-tahje, or *Cointage*—pron. kwahag-tahje; Ger. (same as "to key" above) *Schlüssel* or *Keilverbindung*—pron. fair-been-duuhng. Syn. Fr. for "keyed work," *Ouvrage à clavier*—pron. ooh-vrajhe ah klah-vee-eh; Ger. *Schlüsseln*- or *Keilenwerk*.

Kitchen Garden, in House Building.

That part of the ground attached to or connected with the house in which vegetables used in the kitchen, etc., are cultivated, such as potatoes, pease, beans, cabbages, and the like. Syn. Fr. *Jardin potager* or *maraisier*—pron. jhaar-dahn or -dahng poh-tajhe-eh, marr-eh- or ah-shay; Ger. *Küchengarten*; also *Gemüse-* (vegetables) *garten*—pron. gay-muuh-eece-garr-tenn. Syn. Fr. for "kitchen chimney" (which is usually of larger dimensions than the chimney of the other rooms of the house—these are generally 14 in. by 9 in., kitchen chimney 18 in. by 14 in., and so on) *Cheminée de cuisine*—pron. shemm-ee-nay deh kweeze-een; Ger. *Küchenkaminröhre* or *-schornstein*—pron. kuuh-eek-enn-kah-meen-roh-ray or shorn-stine.

Knead or Temper, To, clay for puddling purposes, etc. *Der.* Our word knead (pron. need, not nedd) comes from the Old English *cneaden*, to press or squeeze together, so as to get rid of air, stones or extraneous matter from a plastic substance, and make it closer or denser. Syn. Fr. *Pétrir l'argile*—pron. pay-treer lahr-jheel, or *Marcher l'argile* (*marcher*, to step)—i.e. tread the clay with the feet; also *Mélanger l'argile*—pron. may-lahn-jhay; Ger. *den Thon kneten*—pron. dane tone knay-ten, or *den Thon treten* (*treten*, to tread).

Knead Pipe (see text for Knee). A pipe having one part bent so as to be at right angles or at an oblique angle to the other, used in stove pipes, etc. Syn. Fr. *Tuyau coudée*—pron. twee-yoh kooah-day; Ger. *Knieröhre*—pron. kneeh-roh-er-eh.

Knife, for splitting or splinting or cleaving wood, as laths. *Der.* Our word knife (pron. nife, not knife, as is sometimes used) is from the Old English *cnif*, or from the French *canif* (kah-neef), a penknife, or from the German *knief* (nife), a paring or a clasp knife. Syn. Fr. for "splitting knife," *Couteau à fendre le bois*—pron. koooh-toh ah fahng-derr leh bwah; Ger. *die Holzspießmesser* (from *spleissen*, to split, from which our word splice comes, and *Messer*, a knife)—pron. holtz-splice-mess-air or -err.

Knock. Phrases, as "knock" or "knock up," frequently, the latter especially, used in technical language. The phrase knock up indicates that something is to be erected quickly for temporary purposes, as to knock up a shed, a paling, etc. *Der.* Our word knock comes from the Old English *cnucian* or *cnucan*, to beat or strike heavily or forcibly. Syn. Fr. for "to knock in," synonymous with to drive or force in, *Enfoncer* (to drive, to thrust in by blows)—pron. ahng-fohng-say, or *Ficher* (to fix)—pron. fee-shay; also *Chasser* (to drive out or away)—pron. shah-say, or *Cogner* (to knock, to drive in)—pron. kohng-eh or kohn-nay; Ger. *Einstossen*—literally "to

push in"—pron. ine-stohss-enn; also *Ein-klopfen* (*klopfen*, to beat, to drive in), or *Eintreiben* (*treiben* [tribe-enn], to drive or push in). Syn. Fr. for "to knock up," *Dresser*—pron. dress-eh or dray-say; Ger. *Zurichten*—pron. tzooh-reegh-ten; also *Aufschlagen* (*schlagen*, to dash up, to drive, to beat).

Knocker, Door. The jointed hammer or striking knob fixed to the outside of the entrance door of a house by which parties outside can draw the attention of those inside. Syn. Fr. *Heurtoir* (from *heurter*, to run, to strike against, from which comes our word *hurtle*)—pron. huuhr-trwah; also *Marteau de porte* (door hammer)—pron. mahr-toh deh pohrt, or *Porte-boule* (door ball or bowl)—pron. bool; also *Porte-boucle* (buckle or ring)—pron. booh-kell or bookll; Ger. *Thürklopfel* (*Klopfel*, a drumstick, from *klopfen*, to beat, to tap at the door)—pron. tuuh-err-klohpp-fell, or *Thürklopfer* (*Klopfer*, a clapper, a beater)—pron. -ferr; also *Thürklopfern* (from *klappern*, to clapper, to rattle, our word comes from this)—pron. -klah-perrn.

Knot, Dead, in Wood (see knot in text). Syn. Fr. for a "hard, bad knot," *Nœud vicie*—pron. nuuh or nuuhd veece-yay; Ger. *fauler Knoten*—pron. fowl-air noh-tenn. Syn. Fr. for "knot in a rope," as used in hoisting, *Halement* (from *haler* [hah-lay], to haul or pull)—pron. hall-mahng; also *Nœud de corde*—pron. nuuh deh korrd; Ger. *Reep-knoten*, or *Strickknoten*—pron. streek, or *Leinknoten*—pron. line-eh; also *Lein-schlinge* (*Schlinge* [shleen-gay], a knot, a sling)—from *schlingen* (shleeng-genn), to sling. Syn. Fr. for "knot in slate," *Modillon d'ardoise*—pron. moh-deel-ohng or moh-dee-yong darr-dwawze, or simply *Modillon*; Ger. *Schieferknoten* or *Schiefer schlinge*.

Lacquer Work. Work, generally metal or *papier maché*, varnished with a varnish which dries with great lustre or shining quality, the varnish being generally of shellac dissolved in spirits of wine and coloured by some powder colour. Der. The word comes from the French *laque* (lakk). Syn. Fr. for "lacquer work," *Ouvrage en laque* or *verni*—pron. oohv-rahje ahng lakk, *vair-nee* or *verr-nee*; Ger. *Lackarbeit*—pron. lakk-arr-bite, or *lachierte Arbeit*—pron. lakk-er-tay-arr-bite. Syn. Fr. for "to lacquer," *Vernisser* (to varnish) *en laque*—pron. verr-neece-eh ahng lakk; Ger. *Lachirensfurnissen*, or *Lackmachen*.

Laid, in Construction. A term frequently used to denote the way in which a body, as a brick, is placed or deposited *in situ*. Der. Our word "lay" comes from the Old English *ligan*, to lie, to set down; if not from the German *legen*, or the Latin

legere, to lay. Syn. Fr. for "to lay" down *Poser*—pron. poh-zay; Ger. *Legen*—pron. lay-genn. Syn. Fr. for "laid down," *Posé*.—pron. poh-zay; Ger. *Gelegt*—pron. gay-laigt. Syn. Fr. for "laid flat," *Posé à plat*—pron. ah pluh; Ger. *auf die flacher Seit-gelegt*—pron. owff dare flah-chen zite-eh; also *Flach gelegt*. Syn. Fr. for "laid on edge," *Posé sur le bord*—pron. suuhr leh bore; Ger. *Kantig gelegt*. Syn. Fr. for "laid true" (level), *Posée sur le niveau*; Ger. *Eben gelegt*. Syn. Fr. for "laid straight," *Posée directement*—pron. dee-reckt-mahn, or *Posée en ligne droite*—pron. ahn leen drwah; also *Posée droit*—pron. eh-trwah, or *Posée droit*—pron. drwah; Ger. *Gerade gelegt*—gay-rah-day, or *Eng gelegte*—pron. eng.

Lamp-post. Der. Our word lamp is almost identical with the French word *lampe*, or the German *Lampe*. Syn. Fr. for "lamp-post," *Colonne* or *Pilier lampadaire*—pron. koll-onn, pee-lee-eh lahmp-ah-daïre, or simply *Lampadaire*; also *Montant pour une lampe*—pron. mohng-tang or mohn-tahn; Ger. *Lampenständer*—pron. lahm-penn-stah-eeen-dare. Syn. Fr. for "lamp-stand," *Pied de lampe*; Ger. *Lampenstelle* or -ständ. Syn. Fr. for "table lamp," *Lampe de table*—pron. lawhmp deh tah-bell; Ger. *Tischlampe*—pron. teesh-lahm-peh. Syn. Fr. for "hall lamp," *Lampe de salle*; Ger. *die Hallelampe* or *Soallampe*.

Land, Building. Der. Our word land is the same as the Old English, meaning the earth, the soil. Syn. Fr. for "building land or ground," *Terrain pour les bâtiments* or *construction*—pron. terr-ahng poohr lay bah-tee-mahng, kohn-struuhx-ee-ohng; also *Terrain pour bâtir*, or *Aire des bâtiments*; also *Emplacement pour bâtir*; Ger. *Bauland* or -platz or -stelle—pron. lahnt. Syn. Fr. for "made land or ground, of rubbish, soil," etc., *Aire* or *Terrain rapportée*—pron. rah-porr-tay (from *rapporter* [rah-porr-tay], to bring back); also *Terre rapportée*—pron. tairr; Ger. *geschüttene Erde* (from *schütten*, to shoot, to pour out)—pron. gay-schuuh-eet-enn-eh err-deh.

Landing (see text) generally. Syn. Fr. *Plate-forme*, *Palier*, *Repos* (rep-poh); Ger. *Vorplatz*—pron. four-plahts; also *Treppenabsatz* (*Treppe* [trep-peh], a step).

Larch. A timber much used for mining, railway, and other work. Der. Our word is from the Latin *larix*, *laricis*. Syn. Fr. *Mélèze*—pron. mell-aize; Ger. *Lärche*—pron. layrr-chay. Syn. Fr. for "larch wood or timber," *Bois de mélèze*; Ger. *Lärchenholz*—pron. laar-chen-holts.

Lash, To, as timbers together, or brick-layers' poles and putlogs. Der. Our word comes from the German *Lasche*, a flap or thong, from *laschen*, to fit, furnish with flaps, or from the French *laisse* (lah-eece),

a lash of cords. Syn. Fr. for "to lash or tie up or bind together." *Attacher* or *Assurer avec une corde*—pron. ah-suuh-eh; Ger. *mit Leine, or Strick, sicher machen.*

Lathe. A machine tool used in cabinet making for turning—that is, forming them into shapes the sections of which are cylindrical or parts of circles—objects in wood, ivory, etc. Although the chief feature of the lathe is mechanism by which objects are made to revolve in lines of a circular direction, by an ingenious modification of its mechanism lines eccentric to one another can be cut by means of the tools used in turning. *Der.* Somewhat uncertain, still there is good reason to believe that it comes more from the Welsh *liath*, which means a rod or a staff, than from the Old English *latta*, which means the same thing. A rod or staff is circular in section, being generally formed out of the branch of a tree; so that a machine which would enable objects of some length and circular in direction to be formed would naturally be called by the name for a circular rod—a *liath*—easily corrupted or changed into *lathe* (as a corruption or change of words seems somehow inevitable when they have to be used popularly). Some say that our word *lathe* is taken from another Welsh word, akin to *liath*, a rod—namely, *liathru*, to polish or make smooth; and, as the cylindrical or revolving motion of an object placed in a lathe gives great facilities for smoothing its surface, the adoption of the word *liathru* to designate the machine which so readily polished would be suggested. Syn. Fr. for "lathe," *Tour*—pron. toohr (from *tourner* [toohr-nay], to turn round, to give a revolving movement); Ger. *Drehlade*—pron. dray-lah-deh (from *drehen* [dray-henn], to turn, to twist round, and *Lade*, a counter or shop table, or *Lade*, a press, a chest); also, and more precisely, *Drehmaschine*. Syn. Fr. for "lathe with eccentric chucks" or "eccentric lathe" (see above), *Tour à faire les lignes elliptiques or à ellipse or excentrique*; Ger. *Drehmaschine mit Eccentrik or excentrische Drehmaschine.*

Laundry, in House Arrangement. The apartment set apart for the clothes-washing of the household, fitted up with boiler, tubs, etc., and a separate place to dry, iron, and finish the dressing of the clothes. *Der.* Our word comes from the Old English *lavendry*, a place for washing. This is allied or akin to the French *laver*, to wash, which again comes from the Latin *lavare*, to wash. Syn. Fr. for "laundry," *Blanchissage*—pron. blahn-shee-sahj (from *blanchir* [blahn-sheer], to whiten, to make pure); *blanchissage* is "washing," so that the term is an abbreviation of the complete synonym for laundry, namely, *Chambre pour le blanchissage*; also *Buanderie*—pron. bueh-ahn-der-ee (from

buandière [bueh-ahn-dee-airr], a washerwoman—*Blanchisseuse* is also washerwoman—pron. blahn-shee-seuhz; also *Lingerie*—pron. laihng-jhe-ree (from *du linge*—pron. dueh lahnj); Ger. *Waschhaus* (our "wash-house" is almost identical with this)—pron. vaash-house (from *waschen* [vaah-shenn], to wash); also *Waschkammer.*

Lawn, in Laying out House Grounds. That part of the ground attached to a house, generally in front of it, covered with fine grass turf, usually kept closely cut and trimmed. *Der.* Our word comes from the Old English or Welsh *llan*, an open space, or from *llawnt*, a rising ground with smooth face. Syn. Fr. *Gazon, or Massif de gazon*—i.e. thick turf—pron. mah-seef deh gah-zohng; also *Pelouse*—pron. pay-loose, or *Clairière* (a glade)—pron. klair-ee-air; Ger. *Grasplatz, or Rasenplatt*—i.e. turf flat, or expanse of grass. Syn. Fr. for "lawn mower," *Tondeuse de gazon or de pelouse*—pron. tohng-duuhze (from *tondre* [tohng-derr], to shear, to clip close) deh gah zong or deh pay-looze; Ger. *Rasenmäher* (turf mower)—pron. rah-senn-mah-ee-her (from *mähen* [mah-ee-henn], to mow).

Lay Down, Lay Out, To (see text). The following are some of the leading technical synonyms in which these phrases are used or implied. Syn. Fr. for "to lay (set) out a line," *Aligner*—pron. ah-leen-eh; Ger. *Aligniren*—pron. ah-leen-ee-renn; also *eine Linie aufstellen.* Syn. Fr. for "to lay down the lines of a drawing, or to plot," *Faire l'épure*—pron. fairr lay-puuh-*i.e.* to make the draught; Ger. *Aufzeichnen* (*Reis*, a sketch)—pron. owff-ree-enn. Syn. Fr. for "to lay down flooring or a floor," *Poser un plancher*—pron. poh-zay uuhn plahng-shay, or *Poser un parquet*—which term, however, denotes an inlaid floor, patterns being formed by the way in which the pieces are disposed and coloured (from *parqueter* [paahr-kett-eh], to inlay, from which comes *parqueterie* [paahrk-terr-ee or parr-keh-tree]; Ger. *eine Fussboden legen or Dielen legen.* Syn. Fr. for "to lay out a bed or garden plot," *Exposer une couche de terre pour un jardin*—pron. koosh; Ger. *die Erde bittmachen im eine Garten.* Syn. Fr. for "to lay down the slates of a roof," *Poser les ardoises d'un comble*—pron. poh-zeh laize arrd-whahze duuhn kohm-bell; also *Poser le couverture des ardoises*, or simply *Poser le couverture*—pron. kooh-vair-tuuh. Syn. Fr. for "to lay down stones, bricks or tiles," *Poser les pierres, les briques, les tuiles*; Ger. *die Steine or Ziegelsteine or Dachziegel verlegen.*

Layer. A synonym for a stratum, a bed, a substance spread out to cover a surface, and which can receive another supply superposed upon it. Syn. Fr. for "layer" generally, *Couche, Lit, Assise, Strate, or Zone*; Ger. *die Lage*; also *Schicht* (from

schichten, to place—a disposing in rows or strata; *Schichtung*, disposition or placing of in rows.

Lead (see text). Syn. Fr. for "milled or rolled lead," the form in which it is chiefly used in building construction, *Plomb laminé*—pron. plohm lah-meen-eh (from *laminer*, to laminate, make in plates or sheets); also *Plomb roulé*—pron. rooh-lay (from *rouler*, to roll); Ger. *gerollte Blei*—pron. gay-roll-tay bly (bly pronounced as in Clyde)—i.e. rolled lead (from *rollen*, to roll). Syn. Fr. for "sheet lead," *Plomb en feuilles*; Ger. *Blattblei*. Syn. Fr. for "lead pipe," *Tuyau de plomb*; Ger. *Bleirohre*. Syn. Fr. for "white lead," used in painting, *Plomb blanc*—pron. plohm blang; also *Céruse*—pron. say-ruuse; Ger. *Bleiwiss*—pron. bly-vice; also *Cerussit*. Syn. Fr. for "red lead," used as a paint, and also for making of joints in metal work, *Plomb anglais*; also *Minium*—pron. meen-ee-uhm. Syn. Fr. for "lead work," *Plombage*—pron. plohm-bajhe, or *Plomberie*—pron. -berr-ee or -bree; also *Usine à plomb*—pron. uuh-zeen; Ger. *Bleiwerk* or *-arbeit*. Syn. Fr. for "lead pencil," in drawing, *Crayon de graphite* or *plombagine*—pron. kray-ohng deh grah-feet, plohm-bah-jheen; Ger. *Bleiss* or *-stift*.

Leak. An aperture in a vessel, as a cistern, through which water escapes—in a roof, through which water passes to the interior of the house beneath. Der. Our word comes from the Old English *lecken*, to drip. Syn. Fr. *Voie d'eau*—i.e. water-way—pron. vwah doh; also *Fuite* (escape)—pron. fweet or fuuh-eet (from *fuir* [fuuh-er], to flee); Ger. *Leck*—pron. lekk (from *lecken*, to drop, to run out, to leak); also *die Spalt* (a cleft, a split)—pron. spahl (from *spalten*, to split, to cleave); also *der Riss* (a cleft, a split)—pron. reece. Syn. Fr. for "to leak," *Fuir*, *Couler*, *Faire eau* (to leak out), *S'échapper*, or *S'éventer*—pron. fuuh-eer, kooh-el, fair oh, say-shapp-eh, say-vahng-tay; Ger. *Rinnen*, *Leckaste*, *Tropfen*, *Lecken*, *Auslaufen*, *Ausrinnen*—pron. reen-enn, lekk-ahs-tay, tropp-feln, lekk-en, owss-lowff (ow as in now), -reen-enn. Syn. Fr. for "leakage," *Coulage* or *Fuite* or *Action faire d'eau*—pron. kooh-lajhe, fwheet, axe-see-ohng fair doh; Ger. *Leckwerden*, *Abgang*, *Leckasie*, or *Auslecken*. Syn. Fr. for "leaky," *Qui fuit* or *coule* or *fait eau*—pron. kee fuuh-ee or fwhee, kooh, fay-toh; Ger. *Löcherig*—pron. lo-eehg-err-eeg.

Lease. In building agreement, the term of years for which a house, etc., may be let at a given rent, and on certain conditions. Der. Our word is from the French *laisser*, to let, and this from the Latin *laxus*, loose, which is from *laxare*, to loose. Syn. Fr. for "lease," *Bail*—pron. bah-eel (from *bailler* [bah-yea], to give; Ger. *Pachtvertrag*—pron. pacht-ferr-trahg (*Pacht*, a holding-

tenure lease, from *pachter*, to farm, to take—the Scottish word "pection," bargain, comes from this); also *Verpachtung*, or *Pachtzeit*—pron. pacht-tsite. Syn. Fr. for "leasehold," a place held by lease, to distinguish it from copyhold and freehold, *Tenu par bail*—pron. ten-nueh parr bah-eel; Ger. *Pachtung*.

Length (see text). Syn. Fr. *Longueur*—pron. lohng-guuh; Ger. *die Länge*—pron. deeh lah-eeng-geh. Syn. Fr. for "to lengthen," *Allonger*—pron. ah-lonn-jhay; also *Etendre*—pron. eh-tahn-derr; also *Tirer* (to draw out)—pron. teeh-ray; Ger. *Längen-machen*; also *Strecken* (to stretch out), or *Ziehen* (to draw, to pull out)—pron. tsee-en; also *Dehnen* (to extend)—pron. day-nen. Syn. Fr. for "lengthwise," *En longueur*—pron. ahn-lohng-geuhr; Ger. *Langweise*—pron. lang-vy-zeh. Syn. Fr. for "too long," *Trop long*—pron. troh lohng; also *Longueur en excès*—pron. ex-say, or *Longueur excessive*—pron. ekk-sess-eef; Ger. *Übermässige Länge*, or *zu grosse Länge*—pron. tzooh groh-seh. Syn. Fr. for "deficiency in length," *Défaut* or *Faute de longueur*—pron. deff-oh or foht deh lohng-guuh; also *Manque de longueur*, or *Longueur defectueux* or *insuffisant*—pron. day-fekk-tue-euh, ahn-sueh-fee-zahn; Ger. *Unzulänglichkeit*—pron. oon-tsoo-leng-lich-kite; also *Mangel an länge*.

Lessen. A term frequently used in construction denoting that an object is to be reduced in dimensions, or the quality to be diminished. Der. Our word less is from the Old English *lassa*, to loosen. Syn. Fr. *Diminuer*—pron. dee-meen-uuh-eh, or *Raccourcir*—pron. rah-koorse-er; also *Amoindrir* (*moindre*, less)—pron. ah-mwahng-dreer or -moh-ehng-deer, or *Affaiblir*—pron. ah-fay-bleer; also *Allager*—pron. ah-lajhe-eh, or *Rapetisser*—pron. rah-peh-tece-eh; Ger. *Verkleinern* (*kleine*, little)—pron. fair-kline-ern, or *Vermindern* (*minder*, less, smaller, inferior)—pron. fair-min-derrn; also *Schmälern* (from *schmal*, small, narrow, slender)—pron. shmah-eel-ern, or *Herabsetzen* (set down)—pron. heer-awbb-sait-tzenn; also *Kleiner werden* (to become less)—pron. kline-err fair-den, or *Abnehmen* (to take from)—pron. awbb-nay-men; also *Dünn* (thinner) *machen*—pron. duuh-een-err mah-kenn, or *Dünn* *behauen* (hewn thinner)—pron. bay-how-enn; also *Holz-hobeln* (to plane down wood)—holtz-hoh-belln. Syn. Fr. for "lessening," *Contracture*—pron. kohng-trakk-tuuh, or *Abaissement*—pron. ah-behze-mahng; also *Décroissement*—pron. day-krwahz-mahn or day-kroh-eese-mahng, or *Diminution*—pron. dee-meen-uuh-see-ohng; also *Récoupement*—pron. ray-koohp-mahng; Ger. *Verkleinerung*—pron. fair-kline-err-ohng, or *Verminderung*; also *Herabsetzung*, or *Abnahme*—pron. ahbb- or awbb-nah-may; also *Verdünnung*.

Let in. Der. Our word let comes from

laitan, to allow, to permit, to lease, to give leave. Syn. Fr. for to "let in one piece flush with another," *Une pièce noyée d'un l'autre*—literally "drowned in the other" (from *noyer* [nwoy-ay], to drown)—pron. uehn pee-ace nwoy-ay dahn loh-terr; Ger. *Stücke in einander eingefügt*—literally "pieces in section with one another"—pron. stue-keh inn ine-ahn-derr ine-gay-fueght. Syn. Fr. for "to let go," as for example a rope in hoisting, *Laisser libre* (to let free)—pron. layss-ay or lay-say leeh-berr, or *Laisser franc* or *franchement* (freely)—pron. frahn, frahnshmahnn; also *Dégager*—pron. day-gah-zhay; also *Descendre*—pron. des-sahn-der; also *Baisser* (to lower)—pron. bayss-eh, or *Abaissier*—pron. ah-bayss-eh; Ger. *Niederlassen*—pron. neeh-derr-lahss-enn; also *Hinablassen*—pron. hin-abh.

Levelling (see text), in the sense of making one surface flush with another. Syn. Fr. *Afturement*—that is, taking off the swell (from *fleurer*, to swell)—pron. ah-fleuhr-mahn, or *Defurement*; also *Arasement* (levelling)—pron. ah-rahz-mahn; Ger. *Abgleichung* (gleich, alike)—pron. ahp-gly-choong; also *Gleichstücke*—i.e. pieces alike, or *ebene Gleichstücke*—i.e. pieces levelled or level, alike—pron. eh-bay-nay glyche-stueck-eh. Syn. Fr. for "levelling course," in wall building, *Cours d'assise-arases*—pron. koohr dah-seeze-ah-rahse; Ger. *Ziegelsteinschicht*—pron. tzeeh-gell-stine-shicht. Syn. Fr. for "plummet for levelling," *Muel*—pron. muehl; also *Niveau à plomb*—pron. nee-voh ah plohm; Ger. *Bleisetzwaage*—literally "lead-setting level" (see Plummet)—pron. bly-zets-vah-geh, or *Setzwaage* only.

Lighting of a Large Room or a Building. Syn. Fr. *Allumage* or *Eclairage d'une grande chambre* or *d'une bâtiment*—pron. ah-luuhm-ajhe, eh-kclair-ajhe duuhn grahnghd shawm-berr, duuhn bah-tee-mang; Ger. *Erluchtung* or *Beluchtung von grosse Kammer* or *eine Hausbau*—pron. air- or bay-laught-oong fonn groh-say kah-merr, ine howse-bou (ou as in now).

Lignum Vitæ. One of the hardest of our hard woods, if not the hardest—teak only rivalling it in this respect. Syn. Fr. *Boissaint*—pron. bwah-sahng, or *Boisgaiac*—pron. -gay-akk; Ger. *Gajack* or *Guajackholz*—pron. gah-zhaque-holtz, or *Indianischholz*—pron. een-dee-ahn-eesh. Lignum is the Latin for wood: living or live wood is the meaning of the term *lignum vitæ*, as indicating that it is so imperishable that it may be looked upon as always fresh or living.

Limb of a Tree. Der. Our word comes from the Old English *lim*, an extremity of the human frame, the branch of a tree; or it comes, but little changed, from the Latin *limbus*, meaning the above. Syn. Fr. for "tree limb," *Branche* (our branch), *Membre* or *Limbe d'un arbre*—pron. brahngshe,

maim-berr or memm-berr, lahmbb duuhn ahrr-berr; Ger. *der Rand von eine Baum*, or simply *Baumrand*—pron. bowm-rant; also *Glied*—pron. gleeed, *Baumglied*.

Loosen—Loosening. As to release the bolts or straps of a beam or a truss, to free or make open the soil or foundation round a tree bole, etc. Der. Our word loosen comes from the Old English *lysan* or *leesan*, to untie a thong or fastening. Syn. Fr. for "to loosen," *Lâcher*, or *Relâcher*—pron. reh-lah-shay; also *Dégager*—pron. day-gajhe-eh, or *Déserrer*—pron. day-serr-eh; also *Détacher*—pron. day-tash-eh, or *Démantiller* (to undo)—pron. day-mann-eel-eh; Ger. *Losmachen*—pron. loss-maw-kenn, or *Trennen*—pron. tray-nenn; also *Losgehen*—pron. loss-gay-henn, or *Ablösen*—pron. ahwbb-loh-eece-enn; also *Loshaken* (to unhook)—pron. loss-hah-kane. Syn. Fr. for "to loosen," as a bolt and nut, *Relâcher un écrou*—pron. uuhn-ay-krooh; Ger. *Trennen eine Schraubbolzen*—pron. shroubb-boll-tzane. Syn. Fr. for "loosening," *Relâchement*—pron. ray-lash-mahng; also *Dégagement* (see above); Ger. *Losmachung*; also *Spielen*—i.e. to give an object, as a bolt, a certain amount of freedom to move—technically called "play" (*spielen* [speel-enn], to play). Syn. Fr. for "to loosen the soil," as about a tree, *Racler le sol*—pron. rah-klay leh sohl; Ger. *Anflocken die Erde* (from *flocken*, to beat into): a more correct term would be *Lösmachen* or *Ablösen die Erde*.

Lopping, as the branches of round timber or home-grown hard timber. Der. Our word comes from the Danish *lubbenn*, to cut. Syn. Fr. for "to lop," *Ebrancher*—pron. eh-brahngsh-eh, or *Baïsser*—pron. bah- or bah-ee-say; also *Emonder* (to prune)—pron. eh-mohng-day, or *Elaguer* (to prune)—pron. eh-lahgg-way or -uuh-eh; Ger. *Beschneiden*—pron. bay-shnide-enn; also *Kappen* (to cut)—pron. kah-penn. Syn. Fr. for "loppings" (tree), *des Branches coupées*—pron. day brahngsh koop-paise; Ger. *die abgehaueene Reste* (the hewn or cut-off remains)—pron. dee ahwb-gay-how-enn-eh raise-teh. Syn. Fr. for "a lop," *Branche coupée*; Ger. *das abgeschnittene Holz*—pron. dass ahwb-gay-shneet-enn-eh holtz.

Lower (lower story)—**Lowering**, in *Constructive Work* (as to lower a street or road, a stone, a beam, a truss). Der. Our words low and lower are precisely the same as the Old English, meaning an object at a level below that of another, and to cause a body to descend. Syn. Fr. for "to lower," to allow an object to descend to a lower level, *Descendre*—pron. des-sahn-derr; also *Abaissier*—pron. ah-bayss-ay, or simply *Baïsser*; Ger. *Niederlassen*—literally "to let down"—pron. nee-derr-lahss-enn; also *Vermindern*—pron. ferr-min-dairrn, or *Herabsetzen*—pron. herr-

abb-zet-sen; also *Senken*—pron. zenk-en, or *Abnehmen*—pron. abb-nay-men. Syn. Fr. for “to lower a wall,” *Baisser une mur*—pron. bayss-ay uhn muhr; Ger. *eine Mauer niederlassen*—pron. ine-eh mow-err. Syn. Fr. for “lower story or floor” of a house, *Etage inférieure*—pron. eh-tahj aihn-fair-ee-eum, or *l’Etage d’en bas* (the low story)—pron. lay-tahj dahn bah; Ger. *das untere Stockwerk*—pron. dass oon-terr-reh stock-vairrk. Syn. Fr. for “lowering,” the act of descending, *Abaissenment*—pron. ah-bayss-mahn; Ger. *das Senken*—pron. dass zenk-en. Syn. Fr. for “lowering the tone of a colour,” *Colorer d’un air sombre*; Ger. *eine Farbe trüben* (from *trüben*, to dim, to make muddy)—pron. ine-eh farr-beh truch-ben.

Lustre (of a metal, wood, etc.). *Der.* Our word comes directly from the French, meaning gloss, shining brilliancy, this from the Latin *lustrare*, to shine, and this from *lucere*, to be light: some woods when polished show a high degree of lustre. Syn. Fr. *Lustre*—pron. loose-terr; also *Satine*—pron. sah-teen-eh; Ger. *der Glanz*—pron. dair glahntz. Syn. Fr. for “metallic lustre,” *Lustre en métallique*—pron. may-tahl-cek, or *Métallescence*—pron. may-tahl-aiss-ahngce; Ger. *Metallglanz*—pron. may-tahll-glantz.

Magazine. *Der.* Our word is from the French *magasin*, a place in which articles are stored up. Our word warehouse is, perhaps, the nearest synonym to the French term, although our words “emporium” and “stores” (co-operative) perhaps come more closely to the French term—a large shop in which a wide variety of goods for domestic purposes are kept for sale. Those familiar with Paris will remember the vast shop in the Rue du Louvre, under the Grand Hotel, which gives a good idea of the meaning of the term from the French origin. The word “magazine,” in military architecture, means the building in which the gunpowder, etc., is stored for safety. Syn. Fr. *Magasin*—pron. mah-gah-sehng; Ger. *Waarenlager* (wares shop), or *Packhaus*—pron. pakk-howse (from *packen*, to pack, pack up, from which comes our word packages); also *der Magazin*—pron. mah-gah-tzeen.

Maintain in good order. A phrase used in contracts. *Der.* Our word comes from the French *maintenir*, this from *main*, the hand, and *tenir*, to hold, and this latter from the Latin *tenere*, to hold. Syn. Fr. *Maintenir*—pron. maihn-ten-eerr; Ger. *Erhalten*—pron. err-hahl-ten. Syn. Fr. for “to maintain in good condition or order,” *Maintenir en bon état*—pron. ahn bonn eh-tah; Ger. *in gutem Zustande erhalten*—pron. in gooh-tem tsoo-stahnd-eh.

Make, The. A term synonymous with

the form or fashion of a thing; to make is to form, to construct. *Der.* Our word comes from the Old English *maccian*, to create, to fabricate, to do; or it is from the German *machen*, to make, to form, to fashion. Syn. Fr. for “to make,” *Faire*—pron. fairr, or *Façonner*—pron. fah-sonn-eh; also *Fabrique*—pron. fah-breek-eh, or *Construire*—pron. kohng-struuhk-tay; also *Porter un ouvrage*—literally “to carry (on) a work”—pron. pohr-tay; Ger. *Machen*—pron. maw-kenn, or *Vernichten*—pron. fair-neeght-enn; also *Veranstellen*—pron. fair-ann-stahl-tenn, or *Bilden*—pron. beel-den; also *Leiten*—pron. lite-enn, or *Sichstellen*—pron. seegh-stale-enn. Syn. Fr. for “make,” that is, the form or fashion of an object or body, *Façon*—pron. fah-shohng, or *Forme*—pron. form; also *Structure*—pron. struuhk-tuuh, or *Fabrique*—pron. fah-breek; also *Construction*—pron. kohng-struuhk-see-yong; Ger. *Machwerk*—pron. makk-vairk, or *Mache*—pron. mah-kay; also *Arbeit*—pron. arr-bite, or *Gestalt*—pron. gay-stahl. Syn. Fr. for “to make good,” *Faire correct* or *propre*—pron. fair-kohrr-aikt, proh-perr; also *Faire de bon ouvrage*—pron. deh bohn or bohng ooh-vrajhe; also *Finisser* or *Compléter l’ouvrage*—pron. feen-eess-eh, kôhm-play-tay loohv-rajhe; Ger. *Vergüten*—pron. fair-guuh-eet-enn, or *Behaupten*—pron. bay-howpp-tane (*Haupt*, high or head); also *vergüten die Werk*—pron. dee vairk, or *vollständig machen die Werk*—pron. foll-stah-ee-deeg-maw-kenn. Syn. Fr. for “make-shift” (what serves a temporary purpose, an expedient for the time being, to be afterwards replaced by a correct and a permanent thing), *Une pièce pour l’occasion*—pron. uuhn pee-ace poohr loh-kah-see-yong, or *Un expédient*—pron. aix-pay-dee-ahng; also *Défaite*—pron. day-fate, or *En défaut d’un objet propre*—pron. ahng deff-oh duuhn obb-jhay proh-perr; Ger. *die Nothstück* (a needful or necessary piece)—pron. nott-stooh-cek, or *Lückenbüßer* (from *Lücke* [looh-eh-kay], a gap, and *büßen* [booh-ee-sain], to do penance for; penalty—i.e. something which readily serves the purpose in the meantime)—pron. looh-cek-en-buuh-eece-air. Syn. Fr. for “maker,” one who makes some speciality, *Fabricateur*—pron. fah-breek-ah-tuuh; Ger. *Arbeiter*—pron. arr-bite-airr.

Malachite. A valuable stone or spar used for decoration, of a beautiful green colour, variegated or mottled, derived from the presence of copper. Syn. Fr. *Malachite*—pron. mah-lah-keet; Ger. *Kupferspath* (copper spar)—pron. koopp-ferr-spaht; also *Malachit*—pron. mall-ah-keet.

Malleable Iron. A synonym for wrought iron. *Der.* Our word comes from the French, and this from the low or debased Latin *malleare*, to beat with a hammer. Syn.

Fr for "malleability," *Malleabilité*—pron. mah-lee-ah-beel ee-tay; Ger. *Hammerbarkeit*—pron. hah-mare-barr-kite. Syn. Fr. for "malleable iron," *Fer forgé*—pron. ferr forr-jhay, or *Fer malleable*—pron. mahl-lay-ah-bell; Ger. *Schmiedeeisen*—pron. shneed-eh-ice-enn, or *Hammerbarkeisen*.

Malt Kiln, in *Brewing Architecture*. *Der*. Our word malt comes from the Old English *mealt* or *malt*, from *malten*, to cook, to dissolve, Barley is, so to say, cooked first, wetted till germination begins, and then dried in a kiln with artificial heat. Syn. Fr. for "malt kiln," *Malterie* (*Malte*, malt)—pron. mall-terr-ee or mall-tree; also *Four à drêche* (*drêche*, malt, malt furnace)—pron. foohr ah draish; Ger. *Malzdörre* (malt drier)—from *dorren*, to dry—pron. malltz-doh-eer-eh.

Management, as of building works. *Der*. Our word comes from the Old English *menage*, or the French *ménager*, to keep house, from the Latin *mansio*, a habitation, and this from *manere*, to dwell in a place; possibly also from the Italian *managgiare*, to handle, and this from the Latin *manus*, the hand. The word thus has a dual meaning—to keep a house or an establishment in good order, or to keep it in hand. Syn. Fr. for "building management," *Ménagement*, *Direction*, *Administration*, or *Maniement de construction des bâtiments*—pron. may-najhe-mahng, dee-rexx-see-ohng, ahwd-meen-ee-strah-see-ohng deh kohng-struxe-see-ohng; Ger. *Bauwerkverwaltung*—pron. bow-vairk-fairr-vahl-tuuhng, or *Bauwerkhandlungsweise*—literally "knowledge of handling"—pron. hant-loongz-vice-eh; also *Bauwerkführung* (from *führen*, to lead out)—pron. fuuh-eer-cohng, or *Bauwerkbetragen* (from *tragen*, to carry out)—pron. bay-trah-genn. Syn. Fr. for "manager," *Directeur*—pron. dee-rekk-tuuh, or *Administrateur*—pron. add-meen-eece-trah-tuuh; also *Meneur* (from *mener*, to lead)—pron. may-nuuh, or *Commissaire*—pron. koh-mee-sair; Ger. *Verhalter*—pron. ferr-hall-terr, or *Haushälter*—pron. house-hah-eel-terr; also *Factor*—pron. fakk-tohr, or *Ausseher* (from *sehen* [say-enn], to see)—pron. ows-say-hen.

Manor House. The mansion attached to a large estate in which the proprietor lives whose legal designation is "lord of the manor." *Der*. Our word comes from the French *manoir*, a mansion, and this from the Latin *manere*, to remain in a place, to stay, to dwell. Syn. Fr. for "manor house," *Manoir*—pron. mahn-wahr; Ger. *Herrenhaus* or *-hof*; also *Edelhaus*, *-hof*, or *-sitz* (*edel*, noble).

Manufactory (or simply *Factory*), in *Industrial Construction*. A building in which certain industrial work is carried on, such as cotton spinning, weaving, etc. *Der*. The word manufacture comes from the Latin words *manus*, the hand, and *factura*,

a work, and this last from *facere*, to make. Syn. Fr. *Fabrique*—pron. fah-breek; also *Usine*—pron. ueh-zeen; Ger. *Fabrikgebäude*—pron. fah-breek-geh-boy-deh, or *die Fabrik*.

Maple, Bird's-eye. A fine wood used in cabinet making, much prized for its beautiful colour and markings or veinings,—"humour," as those are technically called,—capable of a high polish. Syn. Fr. for "maple wood," *Bois d'érable*—pron. bwah day-rah-bell; Ger. *Ahornholz*—pron. ah-horn-holtz. Syn. Fr. for "bird's-eye maple," *Broussin d'érable* (*Broussin*, an excrescence)—pron. brooh-saihn; also *Erable madrée* (from *madre*, speckled, spotted)—pron. mah-dray; Ger. *Ahornmaser*—pron. -mah-zerr (*Maser*, a speck). The botanical name for maple is *Acer campestre*.

Marble, Carrara (see text). A pure white marble of the finest quality, obtained from Italy. It is used for statues and interior house work of the first quality. Syn. Fr. *Marbre blanc* or *blanc veine*; Ger. *Carrara Marmor*.

Mashhouse, in *Brewery Construction*. The apartment or apartments in which what is called the mashing process (malt crushing rollers, mash tuns or tubs, being used) is carried on. *Der*. The word "mash," to mix, to mingle, is from the German *maischen*. Syn. Fr. for "mash or mashing-house," *La chambre* or *L'appartement pour brasser* or *écraser* or *mélanger*—pron. lah shawm-berr, lah-parr-teuh-mahn poor brah-say, eh-krah-zay, may-lahn-jhay; also *Chambre à mélange* or *fardeau*—pron. may-lahnj, farr-doh; Ger. *Mischhaus*—pron. mish-house.

Mass. A term used to denote a large bulk, quantity, or volume of any substance collected or pressed together, as a mass of soil, of stone, etc. *Der*. From the Latin *massa*, a lump, or from the German *massen*, to knead, as pressing soil together to form a mass. Syn. Fr. for "mass," *Volume*—pron. voh-luehm; also *Masse*—pron. mahss; Ger. *die Masse*—pron. dee mahs-seh; also *das Volumen*—pron. voh-loo-men.

Match, in *Construction*. A term used to indicate that one piece, as the end of a beam, is so cut and of such dimensions as to fit in with or to the end of another piece or beam. To match may thus be synonymous with "to pair"; hence one of the German synonyms for the word. *Der*. The word comes from the Old English *maccha*, a mate, an equal. Syn. Fr. for "to match," *Accoupler* (to couple)—pron. ah-koooh-pleer, or *Proportionner* (to proportion one part to another)—pron. proh-porr-see-ohng-(or-ohn)-eh; also *Egalier*—pron. eh-gall-eh, or *Faire égal*—pron. fairr eh-gall; also *Assortir* (to assort)—pron. ah-sorr-teer, or *S'accoupler*—pron. sah-koooh-pleer; also *Etre pareil* (to be equal)—pron. ate-err parr-ile, or *Trouver un pareil* (to find an equal)—pron. trooh-vay uhn parr-ile; Ger. *Zusammen-*

paaren—pron. tzooh-sah-menn-pah-renn, or simply *Paaren* (to pair), or *Zusammenpassen*—pron. pah-senn; also *Vergleichen*, to make like (*gleich*, like)—pron. fair-glike-enn, or *Sich vereinigen* ("itself agreeing")—pron. fair-bire-eeght-oong; also *Uebereinkommen*—pron. ooh-eeh-bare-ine-koh-menn. Syn. Fr. for "matchable" (objects which are capable of being made to match or fit together, some being obviously, even at a glance, unfitted for pairing or matching), *Convenable*—pron. kohn- or kohng-vane-ah-bell, or *Proportionnée* (proportioned)—pron. proh-porr-see-onn-eh; also *Assorti*—pron. ah-sorr-tee; Ger. *Vergleichbar*—pron. fare-glike-barr, or *Passend*—pron. pah-sent; also *Aufgemessen*—pron. owff-gay-mess-enn.

Maul. A large, heavy hammer of wood; **Mallet**, a little maul, a wooden hammer to use with one hand—a maul being used sledge-hammer fashion with both hands. Syn. Fr. *Marteau de bois massif*—pron. mahrtoh deuh bwah mah-seef, or *Marteau masse de bois*; Ger. *grosser Holzhammer*—pron. gross-err holts-ham-merr.

Meet, To. A term used in construction to denote that two pieces are so arranged or fitted that their ends come close together. *Der.* The word comes from the Old English *metan*, to come together. Syn. Fr. *Aboutir* (*bout* [booh], end)—pron. ah-booh-teer, or *Rencontrer*—pron. rahng-cohng- or -kohn-tray; also *S'assembler*—pron. sass-ahwm-bleer; Ger. *Treffen*, or *Anstossen* (*Stoss*, a thrust)—pron. ann-stoss-enn; also *Begegnen*—pron. bay-gaig-nen, or *Antreffen*; also *Sich versammeln*—pron. seegh-fairr-sah-mell-enn. Syn. Fr. for "meeting face or joint," *Jointe* or *Charnière rencontre*—pron. jwahnrt, sharr-nee-air rahng-konn-terr; also *Face rencontre*—pron. fahss; Ger. *Scharnier-versammlung*—pron. sharr-nee-air-fair-samm-loong.

Mend. A term sometimes used in constructive work in the sense of repairing or putting into good condition or working order, as the mending of a lock. In a wider sense it is synonymous with to improve the appearance of an object, as that of a painted surface which has got defaced. This meaning is observed in the derivation of our word, which is the first part, with the omission of a letter, of the Latin word *emendare*, and this from *menda*, a spot, a blemish—that is, *emendare* is to take out of or to remove a defect or blemish, or to improve, mend. Syn. Fr. for "to mend," *Réparer*—pron. ray-parr-eh (our word repair comes from this, and the French word from the Latin *re*, and *parare*, to prepare); also *Raccommoder*—pron. rah-koh-moh-day, or *Réformer*—pron. ray-fohrr-may; also *Rétablir*—pron. ray-tah-bleer, or *Corriger*—pron. kohrr-ree-jhay; also *Amender*—pron. ah-mahng-day, or *S'établir*—pron. say-tahb-

leer; also *Se raccommode*—pron. seh rah-koh-moh-day; Ger. *Verbessern*, or simply *Bessern*—literally "to better"—pron. fair-bess-ern; also *Sich bessern*—pron. seegh. Syn. Fr. for "mendable," capable of being mended—some objects not being so, but having to be renewed or replaced by a good one—*Qui peut être raccommodé* or *amendé* or *établi*, etc. (see above)—pron. key puht ate-err rah-koh-moh-day, ah-mahng-day, eh-tah-blai; Ger. *Besserlich*—pron. bess-sair-leegh, or *Verbessertlich*—pron. fair. Syn. Fr. for "mending timber work," *Rechange*—pron. ray-shanjhe, or *Rétablir* (see above) *l'ouvrage de bois en défaut*—pron. ray-tah-bleer loove-raihe day bwah ahng deiff-oh; Ger. *Holzwerkverbesserung*—pron. holtz-vairrk-fair; also *Freischen Holzeswerk zu mähen*—pron. frische-enn holtz-ace-vairrk-tzuuh mah-ee-ken. Syn. Fr. for "to mend or reface painted work," *Répinçauter*, to brush over again—pron. ray-pangce-oh-tay, or *Récolorer*—pron. ray-koh-loh-ray; also *Recolorier*—pron. ray-koh-loh-ree-eh; Ger. *Farben* or *Coloriren* or *Beschönigen einmal über das andere*—i.e. to colour or paint one over the other—pron. fahr-benn ine-mahl ooh-eeh-bare dass ann-derr- or -dair-eh; also *Wiederbeschönigen* or *coloriren* or *farben*—pron. vee-dare or derr-bay-show-enn-ee-gane or -genn, kohl-orr-eer-enn, fahr-benn or -bane.

Mensuration of surfaces, as of walls; of solids, as beams. Synonymous with measuring or calculating the number of square feet and inches and of cubic feet and inches of surfaces or solid bodies. *Der.* Our word comes from the Latin *mensuratum*, measuring, and this from *metire*, to measure. Syn. Fr. *Mesurage*—pron. mess-uehr-ahj; Ger. *Vermessung*—pron. ferr-mess-ooing, or simply *Messung* (from *messen*, to measure). Syn. Fr. for "mensuration of surfaces of solids, or of solidity," *Mesurage des superficies des solides, de solidité*—pron. mess-uehr-ahj deh sueh-pare-feece-ee deh soh-leed, deuh soh-leed-ee-tay; Ger. *Messung der Oberfläche* or *Aussenseite*, or *der Festigkeit* or *der Dichtigkeit* (measures of solidity)—pron. mess-oong dare oh-berr-flech-eh, owss-enn-zy-teh, dare fess-tich-kite, dare dicht-hite.

Merchant, Timber. Dealer in or seller of timber used in construction. *Der.* Our word merchant is closely akin to the French synonym *marchand*, and this from the Latin *mercans*, the present participle of the verb *mercari*, to traffic or trade in goods. Syn. Fr. for "timber merchant," *Marchand de bois*—pron. mahrr-shan deuh bwah; Ger. *Holzhändler* (from *handeln*, to trade)—pron. holts-hend-ler.

Metal, Road. The hard stones broken up into pieces of about a size sufficient to pass through a ring some two to two-and-a-half inches in diameter, and which are used to

spread over and form the traffic surface of a macadamised road, are so called. Syn. Fr. *Cailloutis* (from *caillou*, a flint stone)—pron. kahl-you-tee; also *Petits cailloux* (or *pierres*) *pour la couverture d'une route* or *d'un chemin*—pron. pett-ee kahl-you poor lah kooh-vair-tuehr duehn root, sheu-main; Ger. *kleine Steine zum Pflastern der Strassen*—pron. kline-eh stine-eh tsoom pflast-ern dare strahs-sen; also *Steinschlag* (from *Schlagel*, a beater, or *Schlag*, a blow, or *schlagen*, to beat, to strike).

Middle Post or Rail. Der. Our word middle comes almost directly from the Old English *middel*, a point centrally between two extremes. The term in its constructive sense is synonymous with central. It may be from the Latin *medius*, or from the German, which is closely akin to it, *mittel*. Syn. Fr. for "middle," *Moyen*—pron. mwah-yahn; Ger. *Mittel*—pron. mit-tell. Syn. Fr. for "middle rail, post, or wall," *Traverse*, *Poteau*, *Mur moyen*—pron. trah-vairrs, poh-toh, muehr; Ger. *mittelquerfries Pfosten-mauer*—pron. mit-tell-quairr-freece pfossen-mow-err.

Milkhouse, in Farm Architecture. An apartment in a farm or farm steading in which the milk is kept—special constructive arrangements being adopted to keep the milk at an even temperature, and in a fresh, sweet atmosphere. It is closely connected with the churning-room or dairy-room. The term is often used as synonymous with dairy. Syn. Fr. for "milkhouse," *Chambre pour le lait* (lait, milk)—pron. shahm-berr porr leuh lay; or *laiterie* (the usual term employed)—pron. lay-terr-ee, or popularly late-ree; Ger. *Milchkammer* or *-zimmer*—pron. milch-kah-merr, -tsim-merr.

Mill. A term used in the manufacturing districts in the north of England, with factory, chiefly applied to cotton factories. Der. The word mill comes from the Old English *mylen*, to rub, to grind, or from the French *moulin* (mooh-laihg), and this from the Latin *mula*, a mill. Syn. Fr. for "mill," as explained above, *Usine*—pron. ueh-zeen; also *Fabrique*—pron. fah-breek; Ger. *die Fabrik*—pron. fah-breck.

Minaret, in Architecture. A tall, slender tower, finishing certain parts of the upper region of a building. Minarets are a peculiar and striking feature of Arabian or Mohammedan architecture, the special use to which they are put being commanding places from which "the faithful" are called to prayer, thus answering to our church-bell towers or spires. Der. Our word is from the Arabic *manarat*, this from the Arabic verb *nara*, to shine, and this from *nar*, a fire. The Arabic word means literally a lantern set up in a conspicuous place to send out light afar, as the priest or holy man sends out his voice from the top of the minaret. Syn. Fr. for minaret, *Minaret*—

pron. meen-ahrr-eh; also *Petite tour* (a little tower)—pron. pett-eat toohr; also *Tourrelle* (a turret)—pron. too-rell; Ger. *Minaret*—pron. meen-arr-ate; also *Thürmchen*—pron. tuerrm-chen (from *thürmen*, to keep up, to rise high).

Mirror, in Cabinet Making. The large looking-glass sheet fitted into framework more or less ornate, and fixed on the walls of entertaining rooms in a house, chiefly over the mantel or chimney-piece; but frequently adapted to pieces of furniture, as doors of wardrobes. Synonymous with looking-glass, though this term is generally used to denote small mirrors for dressing or toilet tables, etc. Der. From the French *miroir*, and this from the Latin *mirari*, to wonder. Syn. Fr. *Miroir*—pron. meer-wahr; Ger. *der Spiegel* (from *spiegeln*, to shine, reflect)—pron. speech-gel.

Misfit. A term used to indicate that the part is not well adjusted to the place which it is designed to occupy. It is synonymous with the terms badly done and bad or faulty work. Der. The word is a compound one, the prefix *mis*, and *fit*, which is from the French *fait*, made, meaning that a thing is not made at all, in the true sense of the term, if not made correctly. Syn. Fr. for "to misfit," *Faire mal*—pron. fairr mahhl, or *mal façon*—literally "bad fashion"—pron. fah-song; also *Ajustement en défaut* (defective adjustment)—pron. ah-jhuest-mahn ahn deff-oh, or *Ajustement défectif*; Ger. *Schlechte-werk gemäßen*—pron. sleggt-eh-varrk gay-mah-cek-enn; also *Verunstalten* (to deform, misshape)—pron. ferr-oohn-stahl-ten.

Mobile Soff, in foundation work. Synonymous with shifting or moving from place to place. Der. The word comes from the Latin *mobilis*, a substitution for *movilis*, from *movere*, to move. Syn. Fr. for "mobile or quick soil," *Terrain mobile*—pron. terr-aihg moh-beel; Ger. *Beweglichegründe*—pron. bay-vaig-leegh-eh-gruuh-een-tay; also *Mobilgründ*—pron. moh-beel.

Modeller. The artist or artisan who works largely in clay or a plastic substance in forming ornamental parts from which afterwards matrices or moulds are made to give plaster castings. The modeller may also of course work in wood, as in making a model—as a reduced facsimile of a building; but the distinction between modelling and carving generally is that, while the carver cuts or carves out from solid wood the forms he designs to show, each piece of work standing by itself as a single specimen of his skill and artistic taste, the modeller works in a plastic substance, generally white, known as pipe-clay, by which he makes ornamental forms which are the basis of "moulds" from which a long range of repetitions or copies of the object may be had if desired. Der. Our word model comes



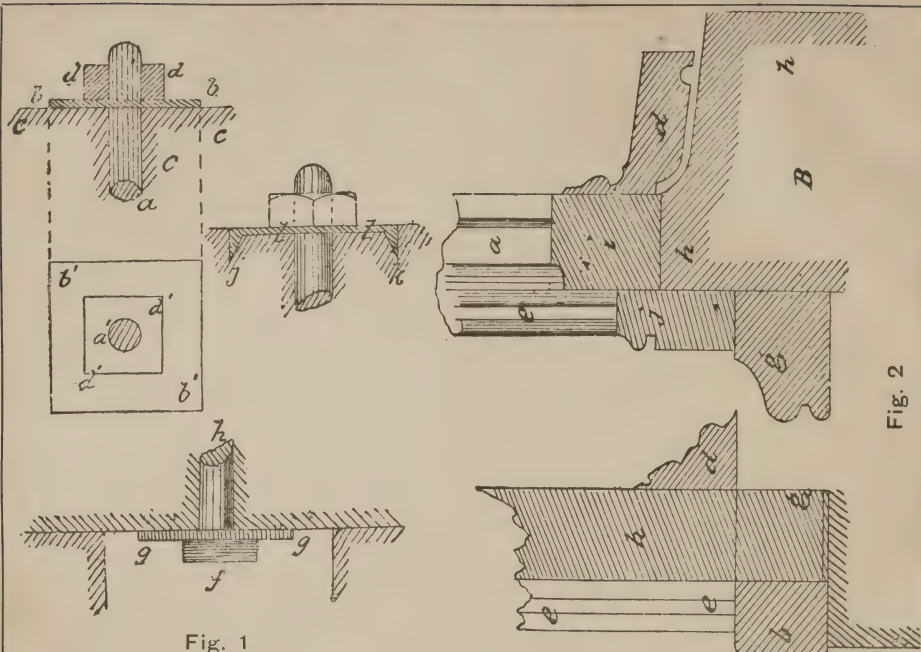


Fig. 2

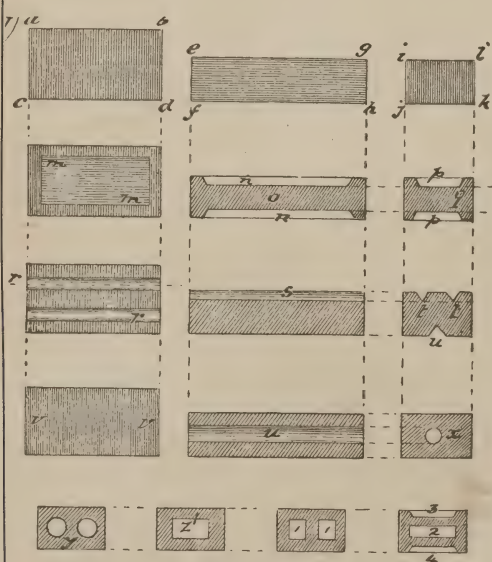


Fig. 3

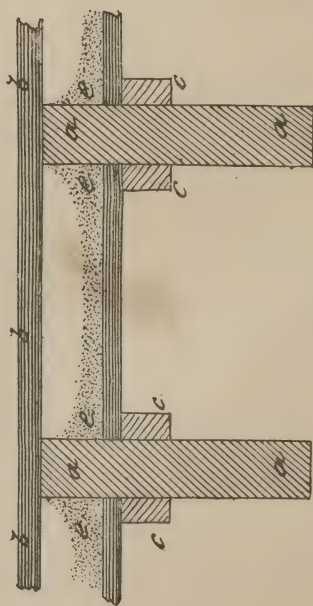


Fig. 4

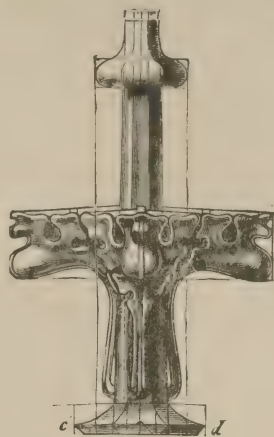


Fig. 1

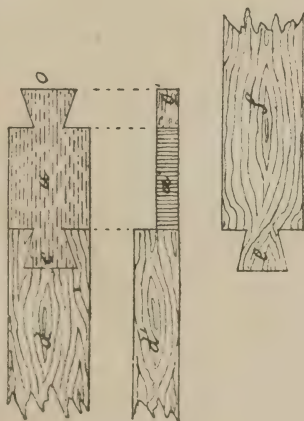


Fig. 2



Fig. 3

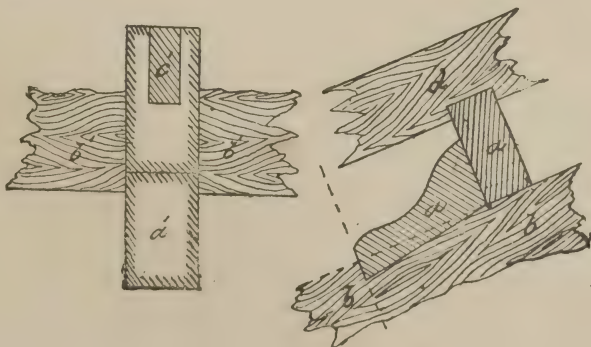


Fig. 4

almost without change from the French *modèle*, this from the Latin *modulus*, and this from *modus*, a fashion, a form. Syn. Fr. for "model," *Modèle*—pron. moh-dale; Ger. *Modell* or *die Form*. Syn. Fr. for "modeller," *le Modeleur*—pron. moh-deuh-leuhr, or popularly *modd-leuhr*; Ger. *Modelmacher* or *-arbeiter*—pron. moh-dale-makk-err, ahr-bite-err.

Mould, in laying out of garden ground of domestic houses. The fine, well-pulverised, soft soil or earth, technically termed free soil or loam, or soil in good tilth, in which flowers and vegetables can be cultivated. *Der.* The word comes from the Old English *molde*, fine earth. Syn. Fr. for "garden mould," *Terre végétale*—pron. tairr vay-jhay-tall—vegetable soil, referring to the finest and richest soil, that produced from decayed leaves and branchlets of trees and vegetable matter, as grass, ordinarily called virgin soil; also *Sol arable*—pron. soll ah-raw-bell; Ger. *Vegetabilichland* or *-erde*—pron. vay-jay-tah-beel-eegh-lant, -err-day, or *Gudeland* or *-erde* (good or fine soil)—pron. guuh-day; also *Krumenland* or *-erde*—pron. krooh-men; also *Acker-* (a field) *krume* (from *Krume*, a crumb—that is, crumbly or easily worked soil)—pron. ah-kare-kroohm.

Mouldings (see text). Syn. Fr. for "bolection or projecting mouldings," *Moulures sacone*—pron. mool-uehrr sah-komm, or simply *Sacone*; Ger. *vorstehendes Leistenwerk* or *Simswerk*—pron. fore-stay-en-dess lice-tenn- or zims-vairrk. Syn. Fr. for "raking, sloping, or obliquely placed mouldings," *Moulures posées obliquement*—pron. poh-zay oh-bleek-mahn; also *Moulures taillées* (obliquely cut) or *rampantes*—pron. tahl-yea, rahm-pahnt; Ger. *Giebelleistenwerk* or *-simswerk*—that is, mouldings on the slope, like the gable of a roof—pron. gee-bell. Syn. Fr. for "circular mouldings," or "mouldings going round a circular, segmental, or elliptical part," *Moulures circulaires, à tour, à segmentale, à elliptique, à oreille, or oreillées*—pron. mool-uehrr seer-kueh-lairr, ah tour, saig-mahn-tahl, eh-leep-teek, orra-ile, orr-ail-yea; Ger. *das runde* (round) *Leistenwerk*—pron. roon-deh, or *Ohr-* (ear) *leistenwerk*. Syn. Fr. for "weathered mouldings," *Moulures taillée obliquement, en face*—pron. ahn fahss; Ger. *abgewässertes Sims*—pron. ahb-geh-vayss-err-tes zims.

Mouth, as mouth of a drain. *Der.* Our word comes from the Old English *mudh*. Syn. Fr. for "mouth," *Bouche, Gueule, Orijice, Embouchure*—pron. boosh, guehl, orr-ee-feece, ahm-booh-shuehr; Ger. *der Mund, die Oeffnung, das Mundstück*—pron. mooud, oeff-noong, moon-d-stuek. Syn. Fr. for "mouthpiece of a pipe," *Embouchure de tuyeau*; Ger. *Röhrenmundstück*—pron. roeh-ren.

Move—Movement. Terms used often in

constructive work. *Der.* Our word comes from the French *mouvoir*, and this from the Latin *movere*, to change the position of a body—movement changing the position or place of a body. Syn. Fr. for "move to," *Mouvoir*—pron. mooch-voh-eer or -vwahr; Ger. *Bewegen*—pron. bay-vay-genn. Syn. Fr. for "movement," *Mouvement*—pron. moochve-mahng or -mahhn; Ger. *Bewegung*—pron. bay-vay-guung. Syn. Fr. for "movable," *Mobile*—pron. moh-beel; Ger. *Beweglich*—pron. bay-vaig-leegh.

Mud, in Foundations, Mud Walling, etc. *Der.* Our word comes from the German *moder*, soil largely saturated or mixed with water, so as to be more mobile than the soil itself: a pool of mud has been said to "have surface but not stability," which gives a good indication of the physical condition of the substance. Syn. Fr. for "mud," *Boue*—pron. booh, or *Bourbe* (mire or mud); also *Vase*—not often used, as it is identical with *vase*, a vessel (our word *vase*)—pron. vahze, or *Torchis*—pron. torr-shee; Ger. *Moder*—pron. moh-dair, or *Lehm*—pron. lame; also *Schlamm*—pron. shlam. Syn. Fr. for "mud wall" (see text), *Mur de boue* or *de terre*—pron. muuhr deh booh, tair; also *Mur à torchis*; Ger. *die Lehmwand*—pron. lame-vahnt; also *schlamm Mauer*. Syn. Fr. for "muddy," as muddy water in sanitary arrangements, *de l'Eau boueuse*—pron. deh loh booh-yuuh; Ger. *Wasserschlamig* or *-moderig* or *-kothig*—pron. vass-air-shlammeeg, -moh-derr-eeg, -koh-teeg.

Mulberry-tree Wood. Botanical name *muris*; hence the French synonym *Bois de murier*—pron. muuhr-ee-ay; Ger. *Maulbeerbaumholz*—pron. mowl-beer-bowm-holtz, or *Holz von die Maulbeerbaum*.

Narrow. A term often used in constructive work—the converse of broad or wide. *Der.* From the Old English *narwe*, having little width or breadth. Syn. Fr. for "narrow," *Étroit*—pron. eh-trwah, or *Exigu* (this means more as being small than narrow)—pron. ex-ee-gueh; also *Borné*—pron. borray; Ger. *Eng*—pron. eng, or *Klein*—pron. kline; also *Schmal*—pron. shmah; Syn. Fr. for "to narrow," to make of less width or breadth, *Rétrécir*—pron. ray-trace-er; also *Se rétrécir*; Ger. *Schmalern*—pron. shmaly-lern; also *Verengen*—pron. fer-eng-en; also *Enge werden* or *machen*—pron. eng-eh vairr-den.

Nature of the Ground. *Der.* Our word nature comes from the Latin *natura*, and this from *natus*, born—nature, things as they exist or are made or created. Syn. Fr. for "nature of the ground," a phrase used chiefly in relation to foundation work, *Nature* or *Condition de terrain*—pron. nah-tuuh, kohn- or kohng-dee-see-yong deh

tair-ane; Ger. *Grund-* or *Land-* or *Bodenbeschaffenheit*—that is, ground, land or soil condition—pron. gruuh-unt-bay-shaff-enn-hite.

Neat (neatly finished). Terms used in connection with constructive work, as joiner's work—all neat and clean or all neatly finished. *Der.* Our word neat comes from the French *net*, and this from the Latin *nitidus*, clean, tidy, and this again from *nitire*, to shine. Syn. Fr. for "neat," *Net*—pron. nett; also *Propre*—pron. proh-perr; Ger. *Nett*, or *Zierlich*—pron. tseer-lich. Syn. Fr. for "neatly done or executed," *Fait proprement*—fay proh-perr-mahn; also *Exécuté net*—pron. aix-eh-kueh-tay; Ger. *mit Nettigkeit machen*, or *nett ausführen*—pron. owss-fuehr-en.

New Work, in *Specification*. A term often used where repairing or restoring work is being done, so as to keep up a distinction between the original and retained work and the new being added. *Der.* Our word new is from the Old English *neawe*, and this is said to be from the Latin *novus*, meaning recent, or, as we say, fresh. Syn. Fr. for "new work in brick, stone, or timber," *Ouvrage nouveau* or *neuf en brique, pierres, or bois*—pron. ooh-vrahj nooh-voh or neuff ahn breek, pierre, bwah; Ger. *neues Werk in Ziegelsteinen, Stein, or Holz*. Syn. Fr. for "new work in painting" (to repaint), *Repeindre*—pron. reh-paihn-derr; Ger. *Übermalen*. Syn. Fr. for "renewing," *Rénouvellement*; Ger. *Erneuerung*.

Noose (in hoisting work, in tying timber together temporarily, etc.). A running knot, the rope or cord so twisted that the greater the pull or strain made upon the "tie" the closer and tighter the noose or knot becomes. *Der.* From the Latin *nodus*, a knot, or from the French synonym *Nœud*—pron. nuuh or nuuhd; other synonyms are *Collet*, *Lacet*, *Coulant*—pron. koh-lay, lah-say, kooch-lahng; Ger. *die Schlinge*—pron. deeh shleeng-eh (our "sling" comes from this). Syn. Fr. for "to make a noose," *Faire un coulant*; Ger. *eine Schlinge machen*.

Oblique. Synonymous with angular, aslant, or off the vertical. *Der.* Our word comes from the Latin *obliquus*, and this from *ob* and *liquis*, awry or aslant. Syn. Fr. *Oblique*—pron. oh-bleek; Ger. *Schief* or *Schräg*. Syn. Fr. for "obliquity," *Obliquité*—pron. oh-bleek-eeh-tay; Ger. *Schrägheit*—pron. shrayg-hite.

Obstruction, in *Drainage Work*, etc. Obstruction, as to the flow of sewage matters in drain tubes, arises from many causes—defective form alike in section and in plan, defective construction and the like. *Der.* Our word comes from the Latin *obstructum*, this from *obstruere*, and this again

from the compound of *ob*, and *struere*, to heap up, pile up against, just as the solid matter in sewage is first precipitated behind and then piled up against an extraneous body present in the drain tube or sewer. Syn. Fr. for "obstruction in a pipe," *Engorgement dans une tuyau*—pron. ahng-gorjhe-mahng (from *gorger*, to choke, to cram, to glut), this latter meaning is taken from the French term in our word gorging; Ger. *eine Röhre stockung* or *verstopfung* (from *stocken*, to fill with sticks, to stagnate, and from *stopfen*, to stuff); also *Ver-schleimen* (from *schleimen*, to fill with slime).

Office, in large building works. The small building, generally of wood, set up in some convenient part of the ground, in which the clerk of the works does his work, and in which the drawings and papers are kept. *Der.* Our word comes from the Latin *officium*, and this from *ob*, and *facere*, to make. Strictly speaking, the term office means the work to be performed, the duty to be applied; but in course of time it has come to be applied to the place, the room in which the work is done. Syn. Fr. *Bureau*—pron. buuh-roh; also *Office*—pron. oh-feece; Ger. *das Amt*, or *der Dienst*—pron. deenst; also *Schreibstube*—pron. shrie-stooch-bay, or *Expedition*—pron. aix-pay-dee-shee-ohn; also *Anrichtezimmer*—pron. ann-reeght-eh-tzee-merr.

Oil colour, as opposed to whitewashing, sized colour, or distemper. *Der.* Our word oil comes from the Latin *oleum*, or the Anglo-Saxon *ele*, an inflammable, thickish, unctuous liquid obtained from animal fat and various vegetable substances, as lint seed or flax seed, and from minerals such as shale, or from subterranean petroleum. Syn. Fr. for "oil colour," *Couleur à l'huile*—pron. cooh-leuhr ah lwheel; Ger. *Oelfarbe*—pron. oehl-fahr-beh. Syn. Fr. for "oil varnish," *Vernis à l'huile*—pron. vair-neeh ah lwheel; Ger. *Oel-* or *Fettfirnis*—pron. oehl-, fett-feer-niss.

Open Up (see text). *Der.* Our word comes from the Old English *eopen*, an uncovered object or place not concealed. Syn. Fr. for "to open up a foundation or a drain," *Ouvrir* or *Découvrir* *le fondement, la fondation*—pron. ooh-vreir day-koochv-reer leuh fohnd-mahn, lah fohn-dah-seeon; Ger. *den Grund öffnen*—pron. dane groond oeffen. Syn. Fr. for "to open up a new street," *Ouvrir* or *Percer* *une nouvelle rue*—pron. pair-say nooh-vell rueh; Ger. *eine neue Strasse durchbrechen*. Syn. Fr. for "open work," as in perforated parapets, ventilating apertures in brickwork, etc., *Ouvrage à claire-voie*—pron. ooh-vrahj ah klairr-vwah; Ger. *durch-* or *ausgebrochene Arbeit*—pron. doorch- or owss-geh-broch-en-neh ahrr-bite. Syn. Fr. for

"the open space," *Espace ouverte*—pron. es-pahss ooh-vairt; Ger. *offener* or *freier Raum*—pron. of-fenn-er or fry-err rowm.

Organ, in Church Architecture. The musical instrument used to accompany singing or chanting in public worship. *Der*. Our word comes from the Latin *organum*, and this from the Greek *organon*, from *orgein*, to work. Syn. Fr. *Orgue*—pron. orrg; Ger. *der Orgel*—pron. or-gall.

Orifice. A term often used in construction, as the orifice or mouth or opening of a drain, in a wall, etc. *Der*. The word comes from the Latin *orificium*, an opening, a mouth, from *oris*, a mouth, and *facere*, to make. Syn. Fr. *Orifice*—pron. ohrr-ee-feece; Ger. *die Mündung* (a mouth)—pron. muuh-een-duuhng; also *die Öffnung*—pron. oh-eef-nuuhng.

Ornamentation, in Architecture and Building. The parts which are decorative or embellishing either by their form or outline or shape, or the surfaces of which are provided or furnished with decorative lines and parts, either carved or sculptured or painted in oil or distemper. *Der*. The word ornament comes from the Latin *ornamentum*, and this from *ornare*, to adorn or supplement with a something which men agree to call beautiful or pleasing to the eye. Syn. Fr. for "ornamentation of work," *Décoration*, *Ornage* (from *orner*, to adorn), *Ornementation*, or *Parage* (from *parer*, to deck out, to adorn) of *l'ouvrage*—pron. day-korr-ah-seen, orr-najhe, orr-neu-mahn-tah-seen, or pah-rahj deh looh-vrahj; Ger. *Verzierung*—pron. ferr-tsee-roong. Syn. Fr. for "ornamental painter," *Peintre d'ornement*—pron. pahnh-terr dorr-neu-mahn; Ger. *Ziermal*er—pron. tseer-mah-leerr, or *Schönmal*er—pron. shoehn.

Outlet of a drain or ditch. The part at the termination of a length of tubing or drain pipes at which the liquid leaves the system, flowing out from the orifice of the tubes, etc. Syn. Fr. *Voie d'écoulement*, the flowing out of, way (*écouler*, to flow out of)—pron. vwah day-kool-mahng; also *Débouchée d'une tuyeau*—pron. day-boosh-eh duuhn twee-yoh; Ger. *eine Röhre Abzug* or *Rohrabzugsloch*—pron. roh-ray-ahwb-tzoogs-loh.

Outside Work, as distinguished from interior work, as joiner's fittings, etc. The term is applied to all work going on without special shelter. Still, to this there are exceptions, as stone-cutting work, which, while it is done outside, is frequently done under the shelter of a shed. Syn. Fr. *Ouvrage en extérieur*—pron. ooh-vrahj ahn aih-tare-ee-euhr, or *Ouvrage de construction extérieur*; Ger. *äussere Arbeit*.

Oven, in House Ironmongery. That part of a kitchen cooking-range in which baking, broiling, etc., are done; in large, as in farm-

houses, the special structure fired or heated separately, and brick lined, in which baking on the large scale is carried on. *Der*. The word is from the Old English *ofen*, a receptacle with arch over, and fired or heated either by a special furnace or by fuel burned in small iron baskets or grilles, called generally *chauffers*, which are placed at certain points as desired on the floor of the oven. Syn. Fr. for "kitchen oven," for baking, etc., *Four*—pron. foohr, or *Four de cuisine*; Ger. *Backofen*—i.e. a baking oven—pron. bahk-oh-fenn, or simply *Ofen*; sometimes *Flammenofen*, an oven heated by flame; also *Bratröhre*—literally "roasting tube"—pron. braht-roeh-reh.

"Overall." A term frequently used, as "so many inches overall," meaning a fair, full measurement of the length of a body from end to end, of the width or breadth from edge to edge, or of depth or thickness from top to bottom. Generally speaking, the term means that the measurement named must not be less—full measurement. Syn. Fr. for "measurement overall," *Mésurage de bout à bout* (from end to end), *de bord à bord* (from side or edge), or *de face à dos* (from front to back)—pron. may-zueh-rahj deh booh tah booh, deh bore dah bore, or day fahss ah doh; Ger. *die Messung von Ende zu Ende*—pron. mess-oong fonn enn-deh tsoo enn-deh, or *Messung von Ecke zu Ecke* (edge to edge)—pron. ekk-eh; also *Messung von der Vorder zur Rückseite*—pron. vorr-derr tsoor rueck-zy-teh.

Overhanging. A term in construction which indicates that a part projects before another, as the eaves of a roof, which are brought so low down that they are in advance of and above the vertical face of wall. Syn. Fr. for "overhanging work," *Ouvrage en surplomb*—pron. oohv-rajhe ahng suhr-plohm, or *Ouvrage suspendu au-dessus*—pron. suhs-pahng-duuh, day-suuh; also *Ouvrage en porte à faux* (work having a false support—that is, apparently hanging without support)—pron. porr-tah foh; Ger. *Arbeit überhangend*—pron. arr-bite ooh-eh-bare-hang-end.

Overlapping, as of slates, beams, etc. *Der*. Our word lap comes from the Old English *lappa*, a border, a flap, something loose, a fold in a fabric. Syn. Fr. for "overlapping of slates," *Recouvrement des ardoises*—pron. reh-koove-err-mahn days arr-dwahz; also *Enclavement*—pron. ahn-klahve-mahn; Ger. *Überziehen mit Schiefer*—pron. ooh-ber-tzee -henn mit shee -ferr. Syn. Fr. for "overlapping of beams" (the more correct term would be overlaying, inasmuch as lapping consists in placing one part of a beam upon or above another part), *Recouvrement des poutres*—pron. day pooh-terr; also *Poutres coupées à mi-jointe* (half-jointed beams, half-lap)—pron. kooh-pay ah mee-

jwahrt; Ger. *Balken überzogen mit Halbscharnier*; also *überblätete Balken*.

Parquetry. The art of inlaying floors with woods of different forms and colours, so as to form patterns, making up, in large floors, as those of public halls, a general design. The art may otherwise be called floor mosaics. Syn. Fr. *Parqueterie* (the English word is very closely allied to this, being simply altered in accordance with the genius or national peculiarity of the English language)—pron. park-ett-ree (the term is from the verb *parqueter*—pron. parr-kett-eh); Ger. *Parquet*, or *Tafelwerk*—that is, table-work or work of the same class as inlaying table tops with wood—mosaic work—pron. tah-fell-vairrk.

Passage, in Domestic Architecture. A narrow space much longer than broad or wide, between two walls, serving as a means of communication between one part of the house and another. If at the back part of the house in a large structure it is called a back lobby, or, more generally, simply passage. Der. Our word is from the French *passer*, to pass, and this from the Latin *passus*, a step. Syn. Fr. for "passage," *Allée*—pron. ah-lay, or *Coulissoire*—pron. koohl-eece-wahr; also *Passage dégagé* (private passage)—pron. pah-sahj day-gah-jay, or *Allée latérale* (side passage)—pron. lah-tay-rahl; Ger. *der Gang* (from *gehen*, to go), or *geheime Gang* (*geheim*, secret)—pron. gay-hime-eh gahng, or *Seitengang* (side or lateral passage)—pron. zite-enn.

Patch up, To. A phrase often used in constructive work to indicate that some repairing work is done in a way more or less temporary. It is synonymous with the phrase "to mend." Der. The word comes from the German *patschen*, to dabble, or less directly from *pfuschen*, to botch or bungle. Syn. Fr. for "to patch," *Rapiécer*—pron. rah-pee-ace-eh; also *Raccommoder* (this more correctly means to mend)—pron. rah-koh-moh-day; Ger. *Flicken*—pron. flee-kenn, or *Stücken*—pron. stooh-eek-enn; also *Ausbessern*—pron. owse-bess-errn. Syn. Fr. for "to patch up," *Plâtrer*—pron. plah-tray; also *Bacler*—pron. bah-klay; Ger. *Zusammenstopfeln*—pron. tzuuh-sah-menn-stopp-elln; also *Hinsudeln*—pron. heen-suuh-delln.

Perforate a body, as a stone, is to make a hole or aperture through it. Der. The word comes from the Latin *per*, and *forare*, to bore. Syn. Fr. *Percer d'autre en autre* (from the one side to the other)—pron. perr-say doh-terr ahng oh-terr, or *Perforer* (which is the Latin word), to bore through—pron. per-forr-eh; also *Creuser* (but this refers to the work of hollowing out)—pron. kruuh-zay, or *Trouer* (from *trou*, a hole)—pron. trooh-ay; Ger. *Löchen*—pron. loh-eek-

enn (from *Loch*, a hole), or *Durchlöchen*—pron. duurshe (to through-perforate); also *Durchbohren* (*bohren*, to bore)—pron. -boh-renn. Syn. Fr. for "perforation" (same word as ours)—pron. perr-foh-rah-see-ohng; also *Trou*—pron. trooh; Ger. *das Loch*—pron. dass lohg; also *das Durchbohrung* or *-löchung*—pron. -boh-ruuhng, -loh-eek-ohng.

Perspective drawing of a building. A drawing distinguished from other kinds of drawings, such as plan, elevation, or section, in so far that it gives a view of different sides of the building, such as front, end and roof in one drawing; whereas in ordinary or orthographic drawings, a drawing can only show one part, as a side elevation or front view, at a time. In popular phrase a perspective drawing is a picture drawing showing on paper a view of the structure as it would appear if actually built. As different parts of a drawing of this kind show different sizes and angles of receding lines, measurements to scale cannot be taken from them and applied to or read off from ordinary scales of equal parts. Der. From the Latin *perspicere*, from *per* and *specere*, to look. Syn. Fr. for "perspective drawing," *un Dessin perspectif*—pron. euhn dess-aihn pairr-spekk-teef; Ger. *perspektivische Zeichnung*—pron. pair-spek-teeve-ish-eh tsychnoong, or *Fernzeichnung* (from *fern*, distant, and *zeichnen*, to draw, showing the distance).

Pew, in Church Building. The place in which the worshippers sit, being a compartment having a bench or seat to accommodate several persons. Der. The word is from the Old French *pui*, and this from the Latin *podum*, a high place. Syn. Fr. *Banc* or *Siège* or *Loge* or *Place* or *Chaise d'église*—pron. bahng, see-age, lojgh, plass, shaize day-gleeze; Ger. *Kirchenstuhl* or *-sitz* (church stool)—pron. -seetz.

Plumbline. The line used to test the vertical accuracy of a wall or of timber-work, as of posts fixed in the ground. To the end of a stout cord a piece of lead is attached, and as this, in obedience to the law of gravitation, when freely suspended from a point above forms a line at right angles to the line of the horizon, it is, therefore, vertical. To test the accuracy of a wall, or, to use the technical expression, to see "if it is out of or off the plumb," the cord is held firmly against the upper part of the wall or post, and if its length exactly coincide with the face of the wall or post, it is vertical; if the line and lead hang so that a space is left between it and the lower part of the wall, it shows that the wall is not vertical. Der. The term plumbline is directly from the Latin *plumbum*, lead, lead being the easiest metal to form a "bob" or weight of, being, doubtless, used from the earliest times to form the weight (see Dis-sertation). Syn. Fr. for "plumbline," *Fil*

à plomb (cord with lead)—pron. feel ah plohmmb, or simply *Plomb*; also *Sonde*—this term, however, is more applicable to the sounding-line of the seamen (from *sondiren*, to sound, to probe); Ger. *Senkblei*, lead sinker (from *senken*, to sink, to drop, to lower, and *Blei*, lead)—pron. zenk-bly; also *Bleiloth*—i.e. a lead plummet or lead line—pron. bly-lote. "Mason's plumb-level." In this appliance advantage is taken of the vertical hanging of a heavy mass, as lead, attached to the lower end of a cord freely suspended from a point above to test the accuracy of a horizontal surface, just as the plumbline is used to test the vertical accuracy of a wall. In the mason's level, the lower part of a wooden framing is placed upon the surface, as the upper course of brickwork, and if the plumbline, suspended from an upper point of the frame central to its length, coincides with the vertical line of the frame, the wall is level; if it drops or appears to drop to the right or to the left, the wall is off the level in one direction or the other. Syn. Fr. *Plomb à niveau*—pron. plohmmb ah nee-voh, or simply *Niveau*; Ger. *Bleischeit* (*Scheit*, a billet or log of wood)—that is, a lead [line] wood frame—pron. bly-shite; also *Bleimasz* (*Masz*, a measure) a lead [line] measure.

Prime, To. A term used in painting to indicate a preliminary process to which wood surfaces are subjected before they are painted, the object of which is to "kill" the resinous matter present in the wood, and prepare its surface for the succeeding coats of paint. Der. The word is from the Latin *primus*, first. Syn. Fr. for "to prime wood for painting," *Abreuer* (to water, to soak) or *Appréter* (to prepare, to dress) *le bois pour peinture*—pron. ah-brew-vay leh bwah poor pahng-tueh-rahj; Ger. *für Holzmalerei grundiren*—pron. fuer holts-mahlerr-eye groon-deer-en. Syn. Fr. for "priming by rubbing the surface or knotted parts with pumice-stone, chalk, or plaster of Paris," *Frotter avec la ponce*—pron. frohtay ah-veck lah pohnss, or simply *Poncer*—pron. pohn-say; also *Polir à la pierre-ponce*—pron. poh-leer ah lah pee-airr-pohnss; Ger. *die Reibung mit Bimstein* (from *reiben*, to rub)—pron. dee ribe-oong mit bim-stine.

Proportion, in Architectural Design. A term used to indicate that all the parts are in harmony, or what might otherwise and graphically be described as well balanced, no one member having an undue prominence given to it, so as to dwarf any other part. A good idea of the term may be had from its derivation, it being formed by two Latin words *pro*, for, and *portio*, a portion; so that a building well proportioned means that each member of the design has given to it neither more nor less than its fair share or portion of prominence. The term is applied to the

details or parts taken separately of a design, as well as to the arrangement or assemblage of these in relation to each as a whole. Thus the pilasters of doors, taken as parts or individual members of a general design, may be very ill proportioned—as, for example, in respect of breadth to height, or of the dimensions of mouldings, or of cap or base to general dimensions of the pilaster; while the doors themselves or their voids may be well proportioned, considered as parts of the general design or as showing in the façade or elevation. In this case the pilasters are said to be "ill proportioned" or, in relation to the door they adorn, "out of proportion." The principle applies to all details, however minute, such as mouldings and the like. There are certain "rules" regulating the proportion of certain members of a design, and also of the individual parts of each member. But these are not slavishly followed by those who seem to have naturally the accurate idea of what constitutes true proportion in the general as well as in detail. Those intuitively, as it were, at once hit upon what are the right dimensions to give, so that the whole design throughout when executed will be felt by all to be well proportioned or balanced; or, to follow the derivation we have named, it is seen that each part has precisely its own share or portion of prominence given to it. Students, while paying attention to the established rules which assign definite proportion to certain parts, will do well to study "proportion" in the well-known works of architects whose designs are acknowledged to be what are more or less perfect. The Greeks were the most advanced artists in "proportion," considered as an essential part of architectural design. Syn. Fr. *Symétrie*—pron. see-mate-ree, or *Harmonie*—pron. haar-moh-nee; also (our own word) *Proportion*, only pron. proh-pohr-see-ohng; Ger. *die Symetrie*—pron. dee seem-ee-tree; also *die Form* or *Antheil*—pron. ann-tile; also *Gleichmass* (lit. "like mass"—pron. glieke-mass).

Propyleum or Propyleum, in Architectural Design. A term used to indicate a portico placed before a gate. Syn. Fr. *Propylée*—pron. proh-pee-lay; Ger. *Vorhalle* (front hall)—pron. fore-hahl-leh; also *Propyläum*—pron. proh-pee-lay-oom.

Prostylus, in Architectural Design. A term used to indicate that a portico has columns projecting from the building with which it is connected. Syn. Fr. *Prostyle*—proh-steel.

Prothyra (called also Diathyra) in Architectural Design. A term used to denote the vestibule placed in front of the doors of a house. It may be likened to the well known "porch" (which see). Syn. Fr. *Banière*—pron. bah-nee-air; also *Avant-porte*—pron. ah-vahn-pohrrt.

Prothyrides, in *Architectural Design*.

A term synonymous with "concones," another term used to denote the ornaments which hang or are suspended from the doorways designed in the Ionic style. They are otherwise known as consoles and trusses. Syn. Fr. *Console*—pron. kohn-soll; Ger. *Kragstein*—pron. krahg-stine.

Protractor, in *Drawing Instruments*

(called sometimes a "circumferenter"). An instrument employed to set out angles in building surveys and plans, and in working drawings. *Der*. Its name is taken from the Latin *protractum*, of the verb *protrahere*, and this from *pro*, for, and *trahere*, to draw. There are two forms of protractors: the semicircular the older, and the plain-scale protractor the newer fashioned form of the instrument; the semicircular being usually made of plate brass and the plain scale of ivory or of boxwood. In both, from the centre of the lower edge or side a line is drawn at right angles to the edge or side, dividing the protractor into two equal parts. On the right-hand side of the centre line, say in the semicircular form, the points or lines of angles all converge to or radiate from the central point on lower edge, denoting angles from 0° up to 90°, or a right angle. On the left-hand side of the central line the angle points are marked off, all converging to the central point from the upper end of central line or point of angle of 90° down to the left-hand end of lower edge, terminating at 180°. The protractor thus takes in 180° from the extreme point, 0° on the right hand of lower edge, round the outer edge of semicircle to the extreme point left hand of lower edge to 180°, in half a circle. In the plain protractor the angle points are marked on the outer edges of the two ends right and left, and the outer edge of upper side of protractor. In using the protractor, the lower edge is made to coincide precisely with the line in which another line at a given angle to it is to be drawn, the centre point of protractor's edge coinciding also with the point from which the angular line is to be drawn or to start from. Suppose the angle is 30°, or below a right-angle, the angle point marked or figured 30° is found on the right-hand side of the protractor's centre line; a mark with pencil or pricker point is next made on the paper at this 30° point. The protractor is then removed from the paper or board, and a line drawn through the centre point or base line, and the point marking place of 30° will give a line drawn at an angle of 30° to the base line. Syn. Fr. *Rapporteur pour les angles*—pron. rah-pohr-tuhr. poor laize ahn-gell, or simply *Rapporteur*; also *Instrument pour mesurer les angles*—pron. ahng-struuh-mahng poor may-suhr-eh laize ahn-gell: Ger. *Winkel-*

träger (angle drawer)—pron. veenk-ell-trah-eeg-err; also *Winkelfasser* (angle container)—pron. fass-err.

Pseudo-dipteral, in *Architectural Design*.

A term used to indicate an arrangement of columns in which the inner row of columns is omitted. The term "dipteral" indicates a columnar arrangement in which there are two rows of columns. *Der*. The term dipteral is from the Greek *dipteros*, from *dis*, double, and *pteron*, a feather—two-winged. Syn. Fr. *Diptère*—pron. deep-taire; Ger. *Doppelflügelig* (double-winged)—pron. dop-pel-fluehg-lich, or *Doppelsäulig* (double columned)—pron. zoy-lich. Syn. Fr. for "pseudo-dipteral," *Pseudo-diptère*—pron. sneh-doh-dip-taire, or *Faux-* (false) *diptère*—pron. foh-dip-taire; Ger. *Falsch-doppelflügelig*—pron. fahlish-dop-pel-fluehg-lich.

Pseudo-peripteral, in *Architectural Design*.

A term used to indicate the columnar arrangement in which the columns are attached to the walls in place of being arranged as in the style known as "peripteral" (which see). Syn. Fr. *Pseudo-périptère*—pron. pseuh-doh-perr-eep-taire, or *Faux-périptère*—pron. foh.

Pteroma, in *Architectural Design*.

A term used to indicate a colonnade formed by columns ranged round and at a distance from the main or central building. *Der*. The term is from the Greek *pteron*, a wing. Syn. Fr. *Colonnade autour d'un temple*—pron. koh-loh-nahd oh-toor deuhn tahm-pell; Ger. *Säulengang ringsum einen Bau*—pron. zoy-len-gahng rings-oom ine-en bough.

Pull Down. A term used in building to

indicate that a building or part of a building is to be taken down, either to clear the ground on which it stands, or to make room for a new building or part of a building. *Der*. The term "pull" is from the Old English *pullian*, to draw an object towards one, to drag along. Syn. Fr. for "to pull down a building," *Démaçonner*—pron. day-mah-sohn-nay, or *Détruire*—pron. deh-trweer; also *Débâter*—pron. day-bah-teer, or *Abattre*—pron. ah-bah-terr; Ger. *Mauerarbeit einreißen*—pron. mow-(ow as in now) err arr-bite ine-rice-enn; also *Niederreißen* (to tear down)—pron. nee-dare-rice-enn.

Pulvinated, in *Architectural Design*.

A term employed to indicate the curved outline or swelling edge of the frieze of the Ionic order of architecture. It is applied also to any part of an order or style in which the edge or profile is curved outwards, convex or "swelled out," in place of being in a straight line, as the vertical line of an ordinary frieze. It is so called from its fancied resemblance to the pressed out or swelling end of a pillow, the Latin word for which is *pulvinar*, the root of the term. Hence also the synonymous term sometimes

employed for work of this kind—"pillowed." Syn. Fr. *Frise* or *Platbande en forme*—pron. freeze or plah-t-bahnd ahn form; also *Profil d'un oreiller* (*oreiller*, a pillow or part on which the "ears" [*oreille*, the ear] press in reposing)—pron. proh-feel duhn orr-ail-yeh; Ger. *Polsterfriess*—pron. poll-sterr-freece; also *der antike Ionische Friess*—pron. dare ahn-tee-keh eeh-oh-nish-eh freece.

Pump. The mechanical contrivance by which water is lifted or forced from a low to a high level; used to pump water from foundation trenches and the like, or to obtain a supply of water from a well. *Der.* Doubtful: some take it to come from the Italian *pompa*, and this is supposed to come from the verb *bombare*, to drink. Others (and we think more accurately) believe the word to be a purely Old English one, spelled almost identically the same as our word, *pump*, and which means round or cylindrical, as a pump barrel is. Pumps are of two kinds: the "lifting" and the "force." In the lifting, the height to which the water can be raised is limited—dependent upon the pressure of the atmosphere and the perfection of the vacuum created by the plunger or piston rising or lifted in the pump barrel or tube. This practically places the height to which the water can be lifted considerably below the theoretical height, which may be taken at from 30 to 32 ft. In the lifting pump there is a valve or clack placed in the plunger or piston opening upwards, and another valve also opening upwards at the foot of the pump barrel. On the plunger being raised by its rod, worked either directly or by a lever or pump handle, the valve closes by the pressure of the air on its upper side, and a vacuum more or less perfect is created below the piston; and by the atmospheric pressure on the surface of the water in the well the water is forced up the pump barrel, passing through the valve-opening made by the valve rising, and thus following the under side of piston closely. On the piston or plunger being forced downwards on its return stroke by the rod or handle, the valve at foot of barrel closes, retaining the water in the barrel space, and the valve in pump plunger opens upwards, allowing the water to pass from the under to the upper side of piston or plunger. On the down-stroke being completed and the up-stroke commenced, the valve closes in the piston, being pressed on its upper side by the water above it; and this is then lifted up by the continued upward rise of the plunger till the exit or delivery pipe or mouth at top of pump is reached, when the water flows out and is led away as desired. The lifting pump was originally, and is still often called, though erroneously, the "suction pump," from the notion, first and

for long held, that the plunger sucked up or drew up the water after it, in place of the atmospheric pressure on the surface of the water in which the pump barrel is placed forcing the water into the vacuum space formed below the plunger or piston. In the second class of pump, the "force" or "forcing pump," which gives a constant in place of an intermittent flow or supply of water at its upper part, is provided with a valve opening upwards at the lower part of the pump barrel. At the upper part of the barrel a branch pipe is led off from the main barrel, and is provided with a valve also opening upwards; and the branch pipe above the valve is taken to and connected with a receiver or air vessel. In this form the plunger or piston is solid, having no valve placed in it; and by repeated working up and down in the barrel, the water alternately rises and fills the space below the piston, passing through the lower valve from the source of supply, and is forced out of the barrel by the next or descending motion of the piston, through the valve in branch pipe, and by this to the receiver, a closed air-tight vessel. The pipe conveying the water from this to where the supply is needed is passed into the interior of the receiver, and terminated near the lower part of it. There is, then, always a supply of air at the upper part of the receiver, and as the water is forced into the interior by the action of the pump piston or plunger, the air is the more compressed at the upper part of the receiver the greater the supply of water to it. And thus the compression of the air rendering it very expansive, it presses upon the surface of the water in the receiver, and forces the water to flow out, not only in a continuous stream, but to great heights, dependent upon the force applied to the pump plunger, friction of the water in the pipes, etc.—a force or forcing pump thus useful in supplying water to heights and at distances from the source of supply, as a well, river, or the like, not available by the ordinary lift pump. A third class of pump, applicable where steam power is used to force water from a low to a high level, is the centrifugal pump. This, simply described, is a circular drum or disc supplied with flat or curved vanes or arms made to revolve with great velocity within a case, the lower part of which is connected with a pipe leading to the source of supply, as a reservoir, etc.: the water by the rapid revolution of the disc and vanes is brought up the supply tube and passed on to the delivery tube. Syn. Fr. for "pump," *Pompe*—pron. pohmp (drawing out or dwelling upon the o-h) or poghmp; Ger. *die Pumpe*—pron. dee poom-pay. Syn. Fr. for "lift or lifting pump," popularly called a "suction

pump." *Pompe éléatoire et aspirante*—pron. ale-eh-vah-twahr ate ass-pee-rahnte, or simply *Pompe aspirante*; Ger. *die Hebe- und Druckwerk-pumpe* (from *heben*, to lift, or *Hebe*, a lever, and *Druck*, pressure, or *drücken*, to press or compress)—pron. dee heeb-eh-oont drook-vairk poom-pay; also *die Saug-pumpe*, sucking or suction pump (from *saugen*, to suck)—pron. saugg. Syn. Fr. for "forcing or force pump," *Pompe aspirante et foulante*—pron. pohmp ass-pee-raght eh fooh-lahngt (from *fouler*, to put a pressure upon, as the solid piston compresses the water in the pump barrel, forcing it through the valve in the branch delivery pipe); Ger. *die Saug- und Druckwerk-pumpe*. Syn. Fr. for "centrifugal pump," *Pompe à force centrifuge*—pron. pohmp ah forss sahng-tree-foohh; also *Pompe rotative* or *à rotation*—pron. roh-tah-teeve, roh-tah-see-yohng; Ger. *die centrifugal Pumpe*—pron. dee saint-tree-fooh-gall pom-pay; also *rotirende Pumpe*—pron. roh-tee-rain-day. Syn. Fr. for "pump handle or lever," *Levier de pompe*—pron. leh-vee-eh deh pohmp; also *Balancier* or *Bascule de pompe*—pron. bah-lahng-see-eh, bah-skuuhl; Ger. *die Pumpenhandhabe*—pron. poohm-pane-hant-hah-bay, or *Pumpenhandel*. Syn. Fr. for "pump maker," *Pompier*—pron. pohm-pee-ay; Ger. *Pumpen- or Spritzenmacher* (from *Spritze*, a syringe)—pron. spreetz-zane-maw-kerr. Syn. Fr. for "pumping" of water from a pit or well, etc., *Épuisement*—pron. eh-pweeze-mahng (from *épuiser*, to drain or draw off).

Purified or Purple Work, in *Architectural Design*. A term used to denote that parts are highly decorated with sculptured work. Der. From the Old French *pourfiler*, to embroider with thread, from *pour*, for, and *fil*, a thread.

Puzzolano, in *Building Materials*. A sand of volcanic origin much used by the Romans, and still used in some districts as an ingredient in the formation of a building (hydraulic) cement, capable of hardening under water. It derives its name from the town of Puzzoli, near Vesuvius, the celebrated volcano in the Bay of Naples, and from which the ancient Romans found their first supply. Puzzolano (poot-zoh-lah-noh) appears to be a clayey earth which has been calcined in all probability by volcanic heat, ejected from some active volcano, and deposited in mass in its neighbourhood. The constituents are silica, alumina, lime, and oxide of iron. In physical characteristics it is met with in the form of a sand or powder, or in coarse granular pieces, frequently in pumice-stone and tufa. Its colour varies from a brown or violet-red to yellow and grey. The only preparation required to make it applicable to the formation of a cement is grinding to a fine

powder, which is then mixed with lime in varying proportions, and applied in the usual way.

Pycnostylos or **Pycnostyle**, in *Architectural Design*. A term used in column or pillar work to indicate that the columns or pillars are interspaced to the distance or extent equal only to one-and-a-half times the diameter of the column or pillar. Der. From the Greek *pūkno*s and *stūlos* (a column), signifying that the columns were placed close together or closer than in the usual arrangements. Syn. Fr. *Pycnostyle*—pron. peek-noh-steel; Ger. *Dichtsäulig* (*dicht*, close, thickly set), "close-set pillared"—pron. dicht-zoy-lich.

Pyramid, in *Architectural Design or Construction*. A solid body, of which the base is generally a square, but may be triangular or polygonal, as a hexagon or octagon. The sides gradually slope or batter inwards from the base equally all round, till they all meet in a single point called the apex. Der. The term is from the Latin *pyramis*, or the Greek *pyramidos* or *pyramis*, from the Greek word *pūr*, fire, denoting that the pyramid resembled in form the flame of a fire (see the German synonym meaning a "flame pillar"). The Egyptian term was *piromi*, the name given to the building which formed one of the most striking of the structures of that singular people. Syn. Fr. *Pyramide*—pron. peer-ah-meed; Ger. *die Pyramide*—pron. dee peer-ah-mee-day. A "truncated pyramid" is what would popularly be called a pyramid cut short—a portion of the upper part or apex being cut off either by a line parallel to the base or oblique to it—generally the former. The term truncated is derived from the Latin *truncus*, the stem or bole (or trunk) of a tree. Syn. Fr. *Pyramide tronquée*—pron. pee-rah-meed trohng-kay; also *Pyramide coupée* (cut pyramid)—pron. kooch-pay; Ger. *Pyramide durchschnitten* (cut through)—pron. doorsh-shneet.

Quadrangle, in *Architectural Design*. A square, equal-sided, right-angled space on all sides of which buildings are erected, thus giving four faces or façades to the general structure. The form is that generally employed in colleges and ecclesiastical buildings. Der. The term is from the Latin *quadrangulum*, and this from *quatuor*, four, and *angulus*, an angle. The angles are all right angles, and therefore all the sides are equal. Syn. Fr. *Quadrangle*—pron. kah-drahn-gell; also *Bâtiment quadrilatère*—pron. bah-tee-mahn kwah-dree-lah-tair; Ger. *Viereck*—pron. fear-ek.

Quarter-stone Work, in *Masonry*. A term sometimes used synonymously with quarry-stone or dry-stone wall (see Quarters).

Quarter-stuff, in *Materials*. A term used to signify in joinery planks or deals one-fourth of an inch in thickness. Syn. Fr. *Planches d'une quatrième*—pron. plah-nsh duehn kah-tree-aim; also *Quartier d'une pouce d'épaisseur*—pron. karr-tee-ay duehn pooce day-paiss-seuhr; Ger. *die viertel-zölligen Bretter*—pron. dee fear-tel-tsoellig-en brett-err.

Quartz. A stone or crystal allied to the precious stones sometimes used in coloured architectural decoration. It is pure silica or silice, generally in a crystallised and transparent state. Syn. Fr. *Quartz*; Ger. *der Quarz*—pron. kwahrts.

Quatrefoil, in *Architectural Design*. An ornament representing in conventionalised form a four-leaved, or what is botanically called a cruciform flower. It is a characteristic feature of the mouldings of the Decorated and Early English styles of Gothic or Pointed architecture where mouldings are not plain but ornamented. *Der*. The term is from, or rather a corruption of, the French term or synonym *Quatre-feuille*—i.e. four-leaved—pron. kah-terr-feull; Ger. *das Vierblatt*—pron. feer-blaht.

Quay, in *Marine Architecture*. The wall which borders a navigable river, the area of a dock or the sides of a harbour, the wharf on which and from which to unload and load goods brought up to the wall by ships, barges, etc. The English pronunciation of the word is key, not gway. Syn. Fr. *Quai*—pron. kay; Ger. *der Kai*—pron. kay; also *Landungsplatz* (ship landing)—pron. lahn-doongs-plahts.

Quenching. A term sometimes used as synonymous with "slacking" or slaking of lime, by pouring water on the calcined or burnt shells. *Der*. The word is from the Old English *cwencian*, to extinguish or put out, as a fire by pouring water upon it. Syn. Fr. for "quenching tub," used also in blacksmith's work for cooling his hot irons, etc., *Eteignoir*—pron. eh-tain-wharr.

Quicken. A term used in building, as in renewing the activity of a mortar somewhat spent by mixing it with a little fresh lime and water. The root derivation of the term is the same as in last term. Syn. Fr. *Egayer*—pron. eh-gahe-yea; a better term is *Vivifier* (to make alive)—pron. veeve-eef-ee-eh; also *Animer*—pron. ah-nee-may; Ger. *Freier machen* (to set or make free)—pron. frihe-air-mah-kane; also *Belaben*—pron. bay-lah-benn.

Quicksand, in *Building Foundation Work*. A term used to signify a foundation soil composed of sand so mingled or mixed with water from a spring or springs as to render it unstable and liable to lateral movement under pressure at any point. It constitutes one of the most difficult and harassing foundation soils with which the builder

has to deal. *Der*. The word quick is from the Old English *cwic*, pronounced like our word, meaning lively, active. Syn. Fr. *Sable mouvant* or *mobile*—pron. sah-bell moooh-vahn, moh-beel; Ger. *Flugsand* (from *Fluge*, flight), a flying sand—pron. floog-zahnt; also *Treibsand* (from *treiben*, to push or drive), sand easily pushed or moved aside—pron. tribe-zahnt.

Quire, in *Church Architecture*. A term sometimes used in place of "choir," the part of the building in which the singers are placed. Syn. Fr. *Chœur*—pron. koh-euhr; also *Ambon*—pron. ahm-bohng; Ger. *das Chor*.

Radius, in setting out work in working drawings or on the ground. The name given to the line which extends from the centre of a circle or of a part of a circle as an arc, to the periphery or circumferential line of the circle. This extent is equal to half the diameter of the circle. *Der*. It is a Latin word, signifying a beam or pencil of light. The word ray, as in the phrase ray of light or heat, comes from the same word. Syn. Fr. *Rayon*—pron. ray-yohng or ray-ohng; also *le Semi- or Demi-diamètre d'une circonférence*—pron. lay semmi- or say-mee- demm-eeh-dee-ah-meh-terr duehn seer-koong-fair-ahngse; Ger. *Radius*—pron. raw-deeh-oose, or *Halbmesser*. Syn. Fr. for "radiation," the diverging lines, as in the divisions of a rose window, the sash-bars of a door, semicircular window, etc., *Rayonnement*—pron. rah-yohng-mahng; Ger. *Ausstrahlung*—pron. owsse-straw-loohng. Syn. Fr. for "radius line," in setting out carpentry work, *Simbleau*—pron. seem-bloh; Ger. *Zirkelschnur* (*Schnur*, a cord)—pron. tzeer-kale-shnuur; also *Radiuskette* (*Kette*, a chain) pron. kett-eh.

Ragstone Work, in *Masonry*. A peculiar method of building a wall, frequently termed Kentish ragstone, in which flattish, irregular-sized stones are placed at irregular intervals with layers of mortar—often, in rough work of the kind, of clay or adobe. The pieces are generally about the thickness of a brick, and although generally laid in horizontal courses, are often placed irregularly, some at an angle or oblique, others vertical or at right angles, to the base line. The distinguishing feature between ragstone work and rough or ordinary rubble-work (which see), is that in the latter the stones are generally large and of all sizes and shapes, but possessing considerable sectional area, with no attempt at regular courses; whereas in ragstone work the stones are thin and flat, of fairly uniform thickness, and where the horizontal disposition is employed the courses are pretty uniform. Kentish ragstone work is often used in church building; and with the joints generally deep or large, the appearance is somewhat striking and effective. *Der*.

The word "rag," which gives its name to this method of building, and which denotes something irregular or rough at edge, comes directly from the Gaelic *rag*, a tattered garment. Syn. Fr. for "ragstone," *Moellon manœuvre* (clayey or marly rubble-stone) — pron. moh-ell-ohn man-noh, or simply *Moellon*; also *Moellon laminaire* (laminated rubble) — pron. lah-mee-naire, or *Moellon feuilleté* (leaf-shaped rubble-stone) — pron. feul-yet-tay; Ger. *Bruchstein* (broken or fractured stone) — pron. brooch-stine. Syn. Fr. for "ragstone wall," *Mur en moellon manœuvre* or *laminaire* or *feuilleté*; Ger. *Bruchsteinwand* or *-mauer* — pron. brooch-stine-vahnt, -mow-err.

Rain-water Cistern, in House Fittings. The cistern fitted up in a convenient part of a building into which the eaves, gutters, and down pipes or spouts lead the water shed of the roof. In some cases, in place of an open or exposed cistern, the rain-water passing from the roof is often stored up in brick-lined, underground tanks, generally called "terra" cisterns, so named from their being at one time lined with, or the bricks set in the cement called, "terra." In all cases where regard is had to a supply of water peculiarly valuable for personal washing and for clothes, rain-water should never be passed into the drains as it so often is, and thus wantonly wasted. The shrewd people of the North of England, for example, know the value of rain-water, and even the smallest houses will have some convenience fitted up to catch and store the rain-water, so delightfully pleasant for personal ablution, and so economical in laundry work. *Der.* The word rain comes from the Old English *ren*, water coming in drops from the atmosphere. Syn. Fr. for "rain-water," *Eau de pluie* — pron. oh day pluuh-ee; Ger. *Regenwasser* — pron. ray-genn-vass-err. Syn. Fr. for "rain-water cistern or chamber," *Reservoir* or *Chambre à pluie* — pron. ray-zare-vvahr or simply *Fontaine* (in connection with a house) — pron. fonn-tane; Ger. *Regenfass* — pron. ray-genn-fahss.

Rake, in Tools and Appliances. A tool used for mixing concrete, somewhat like a similar instrument for mixing lime and hair for plastering (see Hawk). *Der.* The word rake comes from the Old English *race*, or the Icelandic *racca*, to scrape together. Syn. Fr. for "rake," for mixing concrete, *Griffe* — pron. greeff; also *Râteau pour le béton* — pron. rah-toh poor lay bett-ohng; Ger. *Betonhaken* — pron. bay-tonn-hah-kenn.

Range, To. A term used in construction to indicate that one part of a structure is in line with another part, or where several structures are built in connection with each or contiguity to one another, the whole are placed in line; as, for example, the counterfeits or buttresses or set-offs of a brick wall.

A synonym is "to set in a row." *Der.* The word range comes from the French *ranger*, to put in order, or from *rang*, a row. Syn. Fr. for "ranging," *Allignement* — pron. ah-leeng-mahn; Ger. *Anordnung* — pron. ahn-ord-noong.

Rat-tail File. So called from its resemblance to the long thin tail of the rat, indicating that it is circular in shape, of considerable length, and smaller at one end than the other. It is used to enlarge holes, etc. Syn. Fr. *Lime queue de rat* — pron. leem quuh day rah; also *Lime ronde allongée* — pron. leem rohngd ah-long-geay; Ger. *Rattenschwanzfeile* — pron. rah-tennshwanzt-file-eh.

Raw Materials. A term used to indicate the condition in which materials of one kind or another are supplied by the dealer, and before they are worked up or tooled. *Der.* The word comes from the Old English *hreaw*, or the German *roh*. Syn. Fr. for "raw materials," *Matériel non travaillé* or *fabriqué* — pron. mah-tare-ee-ell nohng trah-vah-eel-eh, fah-breek-eh; Ger. *unbearbeitete Materialien*.

Rebuild. A term used in construction to denote that a structure or some part of a structure, which is defective or wrongly placed, is to be taken down and restored, as in the phrase "take down and rebuild," or build anew. Syn. Fr. *Rebâtir* — pron. ray-bah-teer, Ger. *Wiederbauen* — pron. vee-derr-bow- (ow as in now) enn; also *Wiederaufbauen* — pron. owff-bow-enn. Syn. Fr. for "to rebuild the foundation," *Rebâtir le sous-œuvre* or *le fondement* — pron. ray-bah-teer lay sooze-ooh-verr, fohngd-mahng; Ger. *das Fundament wiederbauen* — pron. dass foon-dah-ment veeh-derr-bow-enn.

Receptacle. A term sometimes employed to indicate that a place is set apart in which materials are to be kept, as the asphalt is sometimes called a receptacle for domestic refuse. *Der.* The word comes from the Latin *receptaculum*, and this from *receptare*, to receive or hold. Syn. Fr. *Réceptacle* — pron. ray-sepp-tah-kell; Ger. *das Behältniss* — pron. dass bay-hah-eelt-neece.

Rectangle. A four-sided figure or surface, as the outline of a building, in which the angles are all right angles. A square, all the sides of which are equal, is a rectangle; but the term is more generally employed as indicating a figure of which all the angles are right angles, but of which only two and opposite sides are equal, the ends being narrower than the sides. In this sense a parallelogram is the correct name for the figure. *Der.* The word comes from the Latin *rectum*, right, and *angulus*, an angle. Syn. Fr. *Rectangle*; also *Parallélogramme*; Ger. *Rechteck*. Syn. Fr. for "rectangular," *Rectangulaire* — pron. rake-tan-quuh-lare; Ger. *Rechtangelig* — pron.

recht-ang-gell-ich, or *Rechtwinkelig* — pron. recht-vink-ell-ich.

Rectilinear. Right or straight lined in the converse of circular or curved. *Der.* The term is from the Latin *rectum*, right, and *linea*, a line. Syn. Fr. *Rectiligne* — pron. rake-tee-leen; Ger. *Geradlinig* — pron. gay-rahd-leen-eeg.

Reflexibility, in Materials. The quality which a body has of returning to its original position when bent out of it by some force or pressure. It is synonymous with "resiliency," a bending or turning back. *Der.* The word comes from the Latin *reflexus*, past participle of *reflectere*, and this from *re*, again, and *flectere*, to bend or turn back. Syn. Fr. *Reflexibilité* — pron. ray-flakes-ee-bee-lee-tay; Ger. *Reflexibilität* — pron. ray-flekk-tee-beel-ee-tayt; also *Zurückstrahlbarkeit* — pron. tzooh-ruek-strahl-barr-kite; also das *Zurückspringen*.

Refuse Materials. Materials rejected, or, literally, *refused* as unfitted for use; a synonym for "waste substances." *Der.* The word is from the French *refuser*, and this from the Latin *recusare*, to decline. Syn. Fr. *Rebut* — pron. reh-bueh; Ger. *Ausschuss* — pron. owss-shooss.

Register Grate or Stove. The name given to that form of grate in which at the upper part of the inclosed top an opening at the back is made which is supplied with a flap or hinged valve. It is fitted with the degree of opening by which the draught of the fire in the grate is supposed to be regulated, and by which, when the grate is not in use, as in summer-time, all communication between the interior of chimney and fire-place or grate is cut off, by bringing down or closing the valve or flap. What is called a "full register grate" has the front, back, and top, with their flap and valve, all in one piece, so that the fireplace or fire-grate proper, in which the fuel is consumed, is entirely surrounded with iron; and when the grate is in place in the chimney recess there is a vacant space behind, the air of which gets heated, but for no economical use, as it is simply passed up the chimney-flue and out into the atmosphere. It may warm the back wall, but it does no office of the kind for the room. From the abundance of iron surrounding the fuel grate, the fire burns dead and dull, the heat being rapidly conveyed away by the metal, and little reflected into the room. Where a bright, cheery fire is desired, a "full register grate" should never be used; it can only be said to be economical in the sense that it prevents proper combustion going on. What is called a "sham" or "half-register" grate, although cheaper — and not so esteemed by those who value a thing only or chiefly because it is costly — is by far the best where a bright and a truly economical

room-warming fireplace is required. In the sham register grate the front only is of iron, the back being filled in with fireclay lumps or bricks. These promote clear and complete combustion, and, getting highly heated and conserving the heat, radiate much of this into the room in place of heating uselessly, as does the "full register," the void space at the back. The term "register" presumably has been applied to this form of grate from the fact that, a valve being supplied to it, the opening of which may be graduated, the degree of "draught" or current through the opening, or that of the fire, is recorded, known, or registered. *Der.* The term register is from the French *registre*, and this from the Latin *regerere*, from *re*, again or back, and *gerere*, to carry — to carry back. Syn. Fr. for "register stove," *Fourneau à registre* — pron. foor-noh ah ray-jees-terr; Ger. *der Registerofen*. Syn. Fr. for "register grate," *Grille à registre* — pron. greel; Ger. *Registrierrost*.

Relay (see text). *Der.* The word lay comes from the Old English *leegen*, or the German *ligein*, and this from the Latin *legere*, to put or place down. Syn. Fr. for "to relay a roof," *Remanier une toiture* — pron. ray-mann-yeh uuhn twah-tuuh; Ger. *ein Dach umlegen* — pron. ine dakk oom-lay-genn. Syn. Fr. for "to relay a pavement," *Remanier un pavé* — pron. pah-vay; Ger. *ein Pflaster umlegen* — pron. flah-stare. Syn. Fr. for "relaying," *Remaniement* — pron. ray-mann-ee-mahng; Ger. *Umlegung* — pron. oom-lay-goohng.

Replaster, in Construction. To replace old with a new coat of plaster. Syn. Fr. *Replâtrer* — pron. ray-plah-tray; Ger. *Ubergypsen* — pron. ooh-eeh-berr-geep-senn. Syn. Fr. for "replastering," *Replâtrage* — pron. ray-plah-trahje; Ger. *Ubergypfung*.

Repointing, in Bricklaying. The replacing of old with new pointing. Syn. Fr. for "to repoint," *Repointir* — pron. ray-pwahng-teer; Ger. *Anspitzen* — pron. ann-speetz-enn. Syn. Fr. for "repointing," *Repointage* — pron. ray-pwahng-tahje; Ger. *Anspitzung*.

Resiliency, in Materials. The quality, as in a wooden beam, which enables it to spring back or return to its original position when relieved from a weight or pressure put upon it. The term is synonymous with "reflexibility" or "elasticity." *Der.* From the Latin *resiliens*, the past participle of *resilire*, to leap back, and this from *re*, again, and *salere*, to leap. Syn. Fr. for "resiliency," *Elasticité* — pron. eh-lass-tee-see-tay; also *la Force élastique* — pron. lah forss ale-ass-teeek; Ger. *Elasticität* — pron. eh-lass-teece-ee-tayt; also *Springkraft* — pron. spring-krafft.

Resistance, in Materials. The power to meet or bear up under a weight, force, or

pressure put upon them, as the resistance to compression or a crushing force in the case of a stone block, or a timber post or pillar; the resistance to tension or a pulling-asunder strain, as in a timber tie-beam or a wrought-iron tie-rod. *Der.* From the Latin *resistere*, to oppose or stand against, and this from *re*, again, and *sistere* or *stare*, to stand. *Syn.* Fr. for "resistance," *Résistance*—pron. ray-seese-tahnge; *Ger.* *Widerstand*—pron. vee-derr-stant. *Syn.* Fr. for "resisting strength," *Force de résistance*; *Ger.* *widerstehende Kraft*.

Restoration. A term in construction, the equivalent of which is "renovating" (which see in text). *Der.* From the Latin *restaurare*, from *re*, again, and *stare*, to stand. *Syn.* Fr. *Renouvellement*—pron. ray-nooh-vell-mahng; also *Rectification*, making right (from *rectum*, right, and *facere*, to make or do)—pron. rake-tee-fee-kah-seon; *Ger.* *Wiederherstellung*—or (more directly from the Latin) *Restauratio*—pron. ray-stower-ah-see-ohn; also *Restaurirung*—pron. race-tow-rear-oong.

Retentive, in Materials and Construction. Indicating the capability of holding or retaining, as a retentive clay, a clay holding the water, resisting the power to filter or pass through it; or, as in the case of a cistern, capable of retaining or keeping up the water stored up in it. *Der.* From the Latin *retentum*, and this from *retinere*, to hold. *Syn.* Fr. for "retention," *Étanche* (from *étancher*, to stop, to quench)—pron. eh-tahnsh; *Ger.* *Festhalten*—pron. festt-hallten.

Revetment, in Building. A term synonymous with "retaining wall." The term has its special application in military architecture or building, as it applies to the wall of masonry built in front or in the face of the earthwork of a fortification rampart, to sustain the soil. *Der.* The term is purely French, and means literally clothing or re-clothing, and this from *revêter*, to clothe. *Syn.* Fr. *Mur de revêtement*—pron. muehr deh ray-vett-mahn, or simply *Revêtement*; *Ger.* *Breschmauer* (a breach wall)—pron. bresh-mow-air.

Rigidity, in Materials. Synonymous with stiffness, stability: the quality which gives steadiness under strains or shocks, as in the case of a beam. *Der.* From the Latin *rigidus*, stiff, from *rigere*, to be stiff. *Syn.* Fr. *Rigidité*—pron. ree-jee-dee-tay; *Ger.* *Steifheit*—pron. stife-hite.

Rim-lock, in Ironmongery. A lock which is fastened outside of the lock "style" of a door, generally on the side of the door towards the interior of the room, the handle showing only on the outside of the door, as on the lobby or passage side. A rim-lock is used only in lower-class houses or in ordinary rooms; they are much cheaper and much

more easily applied to a door than a "mortise" lock, which does not show on either side of the door, nothing being seen but the handles, the keyhole escutcheon, and the bolt handle. Rim-locks are of two kinds: the rim-lock proper, by which the door can be secured by lock and key, and the sham rim-lock, which has no lock proper, but only the ordinary latch-bolt, the door being capable of being securely fastened by the door-bolt, and the knob or finger-plate accessible only on the inside of the door. *Der.* The term "rim" is given to the lock inasmuch as, being fastened generally by two screws to the outside of the lock-style, and projecting therefrom, it shows an edge or "rim" all round. *Syn.* Fr. *Serrure*—pron. say-ruhr; *Ger.* *Kastenschloss*—pron. kah-sten-shloss.

Ripping Saw, in Tools. A hand-saw so set that it saws the fibre of wood quickly, or "rips" planks up in the direction of the fibres, contradistinguished from the "cross-cut" saw, the teeth of which are set so as to cut the plank, etc., across the fibres. The cross-cut saw chiefly used on the Continent is the form known as the bow-saw, with a narrow blade extending between the ends of the bow or bent frame; the ripping saw used is the English well-known form of saw, with a broad blade narrower at one end than the other, and with a handle at the broad end, with cross aperture to allow the hand to grasp it. *Syn.* Fr. *Scie anglaise à main* (English hand-saw)—pron. see ang-laize ah mahn; *Ger.* *die englische Handsäge*—pron. dee eng-lish-eh hant-zay-geh.

Rivet. A mechanical appliance used in wrought-iron work, such as roofs, beams, or iron bressummers, to connect closely and secure firmly together the plates and parts of the construction. A rivet is made out of a wrought-iron rod or circular bar of the dimensions or section required. A "head" is then formed or forged at one end, with the outside finished in the form of a cone or flattened hemisphere—generally, in hand-made rivets, conical. The inner side of the head is flat, and, being of greater diameter than the rod, forms a neck or shoulder. The other part of the rivet is called the "tail" or shank, the part left of the original diameter of rod used, and the length of which is sufficient to pass completely through holes made in the two or more iron pieces to be secured together, with a part in addition sufficient when hammered up to form a second head, which is hammered tight up against the outer surface or part of the iron. This formation of the second or clenching head is facilitated by heating the rivet red-hot before passing it through the hole in the pieces to be joined, and while one attendant presses up against the

"head" proper with a hammer, the second attendant, using a light riveting hammer, forms the projecting end of the tail into a conical head, or by using a hollow or cup swage gives the head a hemispherical form. *Der.* The term is from the French *river*, to clench or rivet, or from the Italian *ribadire* (ree-bah-deer-eh), to strike or beat, and this from the Latin *re*, again, and *batuere*, to strike. Syn. Fr. for "rivet," *Clou à river*—pron. klooh ah ree-vay, or (as in our word) *Rivet*—pron. reeve-eh; Ger. *Nietnagel* (rivet nail or clenching nail)—pron. neat-nah-gell. Syn. Fr. for "riveting," *Rivetage*—pron. reeve-tahj, or *Revue*—pron. reh-vuehr; Ger. *Nietnagelung*. Syn. Fr. for "countersunk" or "flush rivet," *Rivet noyé*—literally "a drowned or diluted rivet"—from *noyer*, to drown or dilute, the head disappearing from above the surface of metal (see below)—pron. reeve-eh noh-you; also *Rivet à tête braisée*, head sunk or planted below level (from *braiser*, to plant, countersink); Ger. *Niete mit versenktem Kopfe*—pron. neet-eh mit ferr-zenk-tem kop-feh. To countersink a rivet, the end of the hole towards the side of plate, etc., in which the rivet is to show flat, is enlarged so as to form a conical depression, the small end downwards. The end of the rivet is made to project of just sufficient length that when hammered down it fills exactly the conical depression, leaving a flat surface flush with the surface of plate or part of structure. If the end more than fills the conical depression, the part projecting above the general surface is chopped off and filed down till it is flush with the general surface. Syn. Fr. for "rivet hammer," *Marteau à rivets*—pron. mahr-toh ah reeve-eh; Ger. *Niethammer*.

Rubble Wall (see Rubble in text). *Mur en moellon*—pron. muehr ahn moh-ell-on, or *Mur de hourdage* (hourdage, rough masonry)—pron. deh hoor-dahj; Ger. *rauhe Mauer*—pron. row-eh mow-err (ow as in now). Syn. Fr. for "rubble work," *Moellons bruts*—pron. brueht; also *Hourdages en galets*—pron. ahn gah-lay; also *Limonisage*—pron. lee-mon-ee-se-ahj, Ger. *rohes Bruchstein Gemäuer*.

Rugged (a synonym for "rustic work"), in *Architecture*. *Der.* The word comes from the Old English *rug*, rough, shaggy. Syn. Fr. *Jarreté*—pron. jah-rett-eh; also *Raboteux*—pron. rah-boh-teuh; Ger. *Höckerig*—pron. hoh-eeck-en-ich; also *Uneben*—pron. oohn-ay-ben.

Running, as running water on an estate. Syn. Fr. *Courant*—pron. kooh-rahng; Ger. *Fließend*—pron. flee-sent. Syn. Fr. for "running water," *Eau courante*—pron. oh kooh-rahnt; Ger. *fließendes Wasser*—pron. fleece-end-ess vahs-serr. Syn. Fr. for "a running or continued pavement," *Trottoir*—pron. troh-twahr; Ger. *Stadtsteig*—pron.

statt-styg, *Bürgersteig*—pron. bu-er-gerr-styg; also *gepflasterter Weg*, or *Steinweg*.

Rupture, as of a beam or stone. Synonymous with a breakage or an interruption of the continuity of the fibres or the coherent parts of the stone, or, as in the case of a wall, of the bricks or stones which make up the structure. Rupture or separation of one part of a wall from another is generally caused by inequalities in the settlement of the foundations, one part sinking lower than another. *Der.* From the Latin *ruptura*, the condition of being parted asunder, and this from *rumpere*, to break, rupture, broken. Syn. Fr. *Rupture* (same word as ours)—pron. ruep-tuehr; Ger. *Riss*—pron. riss. Syn. Fr. for "line of rupture," or the line which a rupture is likely to follow in a body, as a beam, or the direction of the line of actual rupture, *Ligne de rupture*—pron. leeng deh, Ger. *Risslinie*, or *Bruchlinie*—pron. brooch-leen-yeh.

Rut, in *Roads, Walks, or Pavements*. Depression on the surface, the length of which is greater than the width, and the width comparatively narrow, as the track or depression made by the tire of a wheel or of a wheelbarrow. A rut is thus distinct from a hole, which is generally roundish or unequal-sided, and which measures nearly the same distance at any point across it. *Der.* Our word rut comes from the French *route*, or the Latin *rupia*, or the debased Latin *ruta*, a wheel track in a road surface. Syn. Fr. *Trace*—pron. trass, or *Trace d'une voiture*; Ger. *Spur*—pron. spoor, or *Wagen-spur*.

Saddle Roof, in *Building*. Sometimes also called a barrel or curved-back roof, from the section being rounded, as the riding surface of a saddle is rounded. *Der.* The word comes either from the Latin *sedere*, to sit, or the Old English *saedal*, the movable seat placed on a horse for the rider to sit in. Syn. Fr. for "saddle roof," *Comble* or *Toiture à selle*—pron. sell; also *Toiture* or *Comble à fronton*—pron. frohn-tohn; Ger. *Satteldach*—pron. zaht-tel-dach. Syn. Fr. for "saddle- or harness-room" in stable construction, *Sellerie*—pron. sell-err-eeh; Ger. *Sattel- or Geschirrkammer*.

Safe. The securely made and fastened chamber or receptacle, movable as a box, in which valuables are placed for security. *Der.* Our word comes from the Old French *sauf*, sure, secure. Syn. Fr. for "safe," *Coffre fort*—literally "strong box"—pron. kof-ferr foar; Ger. *Geldschrank*—literally "gold or money cupboard or press"—pron. gelt-shrahnk. Syn. Fr. for "fire-proof safe," *Coffre-fort à l'épreuve de feu*—pron. ah lay-preuve deh feuh; Ger. *feuerfester Geldschrank*—pron. foy-err-fest-err. Syn.

Fr. for "safety lock," *Serrure de sûreté*—pron. say-ruehr deh suehr-tay; Ger. *Sicherheits-* (Scotch *sicker*) *schloss*—pron. zich-err-mohes-shloss.

Salient feature of a structure—that is, the most striking part of the general design, as an entrance door or porch, a tower, etc. *Der.* The word comes from the Latin *saliens*, the present participle of the verb *salire*, to leap, or move forward by leaps, or coming forward, projecting. Syn. Fr. *Saillant*—pron. sahl-yahn, or sah-eel-ahngt; Ger. *Vorragend*—pron. fore-rah-gent. Syn. Fr. for "a salient foundation or wall"—that is, a wall defective or projecting out of the true line, *Monter de fond or mur*; Ger. *Grundaufsteigen*.

Saloon, in *Architecture*. A large hall or apartment for the display of pictures, public reception of company, or for dancing. *Der.* Our word is almost the same as the French *saalon*—pron. sah-lohn, or it may be from the Old English *sal*, or German *saal*, a large room. Syn. Ger. *Fest- or Balsaal*—i.e. a feasting or dancing large room.

Salt, in mortar or plaster, caused chiefly by using a sand taken from the sea-shore, or, if not actually from the present sea margin, from within the line of old or ancient sea margin—land left by receding waters, and in which salt is often present,—or, as is much less frequently the case, from inland deposits in which certain salts are present. As salt present in mortar is always an agent more or less but always mischievously active in causing efflorescence and dampness with almost every change of weather, it should be the object of every builder to secure in the sand he uses almost absolute freedom from salts of all kinds. To secure this it is generally specified that the best "river sand" (fresh water) be alone used, and in first-class buildings that this even should be "well washed" with soft water to make sure that the smallest percentage of saline matter is got rid of. Nothing can be more reprehensible than the act of a builder using sand known as likely to be impregnated with salt, even if but in small proportion. We have known cases where even mansions near to the sea-shore have been rendered almost valueless from being so damp through the use of mortar made with sand highly salted. *Der.* The word salt comes either from the Old English *sealt*, or the Latin *sal*. Syn. Fr. *Sel*—pron. sell; Ger. *das Salz*—pron. dass zahls. Syn. Fr. for "salt of lime," *Sel marine calcaire*—pron. sell mah-reen kahl-cair; Ger. *Kalksalz*—pron. kahlk-zahls. Syn. Fr. for "salt efflorescence of a wall," sometimes caused by salts of one kind or another present in the sand or lime from which the plaster has been made, *Fleurs du sel d'un mur*—pron. fleuhr dueh

sell duehn muehr; Ger. *Salzblumen an einer Mauer*—pron. zahls-blooh-men ann ine-err-mow-err.

Satin Wood. A valuable wood used in expensive work and in certain classes of cabinet making. It is an oriental timber, and is composed chiefly of two kinds—one with the grain or humour white, the other yellow. Syn. Fr. for "satin wood" generally, *Bois satiné*—pron. bwah sah-teen-eh; Ger. *Atlasholz*—pron. aht-lahs-holts. Syn. Fr. for "white satin wood," *Bois satiné marbré*; Ger. *Atlasholz mit weissem Grunde*—pron. mit vice-emm groon-deh. Syn. Fr. for "yellow satin wood," *Bois satiné colorié*—pron. koll-orr-ee-eh; also *Benoît fin*—pron. ben-wah faihn; Ger. *Atlasholz mit gelbem Grunde*.

Scaffold (see text). Syn. Fr. for "to erect a scaffold," *Echafauder*—pron. eh-shah-foh-day, or *Monter un échafaud*—pron. mohn-tay euhn eh-shah-foh; Ger. *ein Gerüst machen or aufrichten*—pron. ine geh-ruesst mach-enn, owiff-reech-ten. Syn. Fr. for "to take down a scaffold," *Démonter un échafaud*—pron. day-mohn-tay.

Scape. A synonym for the part or moulding of a shaft generally known as the "apophyge" (which see). Syn. Fr. for "scape of a column or shaft," *Fût d'une colonne*—that is, the stock or beginning of a shaft, where the shaft joins the base of column—pron. fueh duehn koll-onn; also *Congé*—which is also another synonym for the term "apophyge," as also is "apothesis" (ah-poh-tay-zees) and "apophysis" (ah-poff-ee-zees)—pron. kohn-jay; Ger. *Anlauf eines Säulenschafts* (shaft of a column)—pron. ahh-lowff ine-ess zoy-lenn-shaffts, or simply *Säulenschaft*.

Scapple, To, a stone. Squaring or dressing a stone by means of a special double-pointed pick or picker is sometimes called scappling. Syn. Fr. for "scappling a stone," *Equarrir une pierre*—pron. eh-karr-eer uehn pee-airr; Ger. *einen Stein winkelrecht* (right angle) *behaben*—pron. ine-en stine vin-kell-recht beh-how-en. Syn. Fr. for "scapple pick," *Smille*—pron. smeel; Ger. *Doppel-spitzhaue*.

Schist foundation soil. That in which the soil is laminated or in sheets or plates like slate. *Der.* The word schist is from the Greek *schistos*, from *schizein*, to cleave or cut in twain—cleavage being the characteristic of the mode of separating slaty or laminated material. Syn. Fr. for "schist," *Sol or Terrain schiste*—pron. soll- or tair-ahn, sheest; Ger. *Schist- or Schiefergrund*—pron. shee-ferr-ground. Syn. Fr. for "calcareous soil," *Schiste calcaire*—pron. kall-kair, or *Chaux concrétionée* (concreted lime)—pron. show cohn-crate-ye-on-nay; or *Chaux carbonatée or lamellaire or laminé*—pron. karr-boh-nah-tay, lah-mee-lair, lah-

mee-nay; Ger. *Kalkschist* or *-schiefer*—pron. kalk-shist, shee-ferr. Syn. Fr. for "silicious or sandy schist soil," *Schiste siliceux*—pron. seel-eeh-seuh; Ger. *Kiesest-schil* pron. kee-zel-sheest. Syn. Fr. for "schistous soil," *Terrain* or *Sol schisteux*—pron. tair-aihn, soll sheest-yeuh; Ger. *schieferiger Grund*—pron. sheef-err-ich-er groond.

Scour of a drain or sewer or of a watercourse. The action of the sewage or water in carrying away or cleaning out solid or sedimentary matter deposited in the interior of the drain or sewer or bed of watercourse. *Der.* Our word scour comes from the Old English *scur* or the Danish *schuren*, to rub away a surface by something hard or rough in order to get rid of something adhering to it. Syn. Fr. for "scour of a river or watercourse," *Réparage*—pron. ray-pah-mahj; also *Nettoyage*—pron. nett-wy-ahj; Ger. *Abschlag von fließendem Wasser*—pron. abh-shlahg fonn fleece-en-dem vahs-ser. Syn. Fr. for "scour of a drain," *Dégorgement d'un égout*—pron. day-gorge-mahn deuhn eh-gooh; Ger. *die Ausschwemmung eines Abzuges*—pron. deeh owss-shvem-oong ine-ess ahp-tsoo-gess.

Scratch, To, in Joinery, Painting, and Glazing. To scour or roughen surfaces by special tools and appliances. *Der.* Our word "scratch" comes either from the Old English *cratch*, to tear or roughen a surface with something rough-toothed or jagged, or from the German *kratzen*. Syn. Fr. for "to scratch," *Griffer*—pron. gree-fay; also *Egratigner*—pron. eh-grah-tee-nay; also *Racler*—pron. rah-klay; Ger. *Kratzen*—pron. krahts-enn. Syn. Fr. for "to scratch wood with the plane" (toothing), *Bretter le bois*—pron. Brett-eh leh bwah; Ger. *das Holz abzáhlen*—pron. das holts ahp-tsah-nenn. Syn. Fr. for "to scratch the paint," *Egratigner la couleur*—pron. eh-grah-tee-nay lah coo-leuhr; Ger. *Malerei kratzen*.

Screw (see text). Syn. Fr. for "screw window fastener," *Fermeture de fenêtre*—pron. fairr-meh-tuehr deh fay-nay-terr; also *Visaillée pour la fenêtre*—pron. veeze-all-eh poor lah fay-nay-terr; Ger. *Fenster-schraube*—pron. fenn-stair-shrow-beh. Syn. Fr. for "screw ferrule," *Cuivrot à vis*—pron. qweeve-roht ah vee; Ger. *Schraub-rolle*—pron. shrowb-rol-leh. Syn. Fr. for "screwlike" (as a twisted pillar), *En hélice*—pron. ahn hay-leece; also *En forme à vis*—pron. ahn foirm ah vee; Ger. *Schraub-förmig*—pron. shrowb-foerr-mich. Syn. Fr. for "countersunk or flat-headed screw," *Vis avec tête perdue*—pron. veeze ah-vekk tayte pair-dueh; Ger. *Schraube mit plattem Kopfe*—pron. mit plaht-tem kop-feh. Syn. Fr. for "screw hook" (tenter), *Tenaille à vis*—pron. tenn-ah-eel ah veece; Ger. *Schraub-haken*—pron. shrowb-haw-kenn. Syn. Fr. for "screw key" or "screw wrench," *Tourne-*

vis—pron. toorn-vee, or *Clef à vis*—pron. klayf ah vee; also *Clé à écrou*—pron. klay ah eh-krooh; Ger. *Schraubenschlüssel*—pron. shrow-benn-shlues-sell. Syn. Fr. for "screw knob or head," *Tête de vis*—pron. tayte deh vee; Ger. *Schraubenkopf*. Syn. Fr. for "screw (lifting) jack," *Cric à vis*—pron. kreek ah vee; Ger. *Schraubenwinde*—pron. vinn-deh. Syn. Fr. for "screwed mouldings," *Moulures hélicées*—pron. mooh-luehrs hay-leece-eh; also *Moulures en forme à vis*; Ger. *schraubenförmige Leisten*. Syn. Fr. for "screw pile," *Pilotis à vis*—pron. pee-loh-teece ah vee; Ger. *Pfahl mit Schraube*—pron. fahl mit shrow-beh. Syn. Fr. for "screw plug," *Cheville vissée*—pron. shay-veel veece-eh; also *Bouchon à vis*—pron. booh-shong ah vee; Ger. *Schraubenstöpsel*—pron. shrow-benn-shtoep-sell. Syn. Fr. for "screw stairs," *Escalier à vis*—pron. aice-kall-yea ah vee; Ger. *Schraubenförmige Treppe*—pron. trepp-eh. Syn. Fr. for "screw tap," *Taraud*—pron. tarr-oh; Ger. *Schrauben-klappe*.

Seam. A synonym for "joint," more frequently used for textile fabrics, as the "seam" of widths or breadths of asphalted felt for covering roofs. *Der.* Our word is the same as the Old English, and comes from the Old Saxon word *seowian*, to sew. Syn. Fr. for "seam," *Couture*—pron. kooh-tuehr; also *Jointure*—pron. jwahn-tuehr; Ger. *Naht* or *Fuge* or *Narve*—pron. naht, fooh-geh, narr-veh; also *Scharnier*—pron. sharr-neerr. Syn. Fr. for "round seam," as in zinc roofing-plates, *Jointure* or *Couture ronde*—pron. rohn-d; Ger. *die runde Fuge*—pron. dee roon-deh fooh-geh. Syn. Fr. for "flat seam," *Jointure* or *Couture platte*; Ger. *die flache Fuge* or *Naht*. Syn. Fr. for "turned in a lap-seam," *Jointure* or *Couture rabattue*—pron. rah-bah-tueh; Ger. *Kappfuge* or *-naht*. Syn. Fr. for "seamy wood or stone," *Bois* or *Pierre à coutures*—pron. bwah or pee-airr ah kooh-tuehr; Ger. *Holz mit Fugen*—pron. holts mit fooh-genn.

Sediment in water. The solid matter or matters held in solution which sinks or falls to the bottom when the liquid is at rest. *Der.* Our word comes from the Latin *sedimentum*, and this from the verb *sedere*, to sit; or more correctly from *sedare*, to settle down. Syn. Fr. for "sediment of water," *Sédiment* or *Conséquence de l'eau*—pron. said-eh-mahng, kohn-see-dahnce deh loh; Ger. *Bodensatz im Wasser, or Wasserbodensatz*.

Self-acting, as a self-acting water-closet—water waste preventer. The term is synonymous with "automatic," which comes from the Greek *autos*, self, and *maisein*, to move. Syn. Fr. for "self-acting," *Automateur*—pron. oh-toh-mah-teuhr; also *Automatrice*—pron. oh-toh-mah-treece; Ger. *Selbstthätig*—pron. selbst-tah-ee-teech. Syn. Fr. for "self-closing" (as a door with falling

helical hinges or spring hinges), *Autoclave* —pron. oh-toh-klahv; Ger. *Selbstverschlies-send*—pron. ferr-shleess-end.

Shambles. A synonym for "abattoir" (which see). *Der.* The word is Old English *scamal*, a bench or stool on which goods—chiefly meat—are set out for sale.

Shamfer. A synonym for "chamfer" (which see).

Shape. A term synonymous with to form, to mould, to fashion. *Der.* The word is from the Old English *scapan*, having this meaning. Syn. Fr. for "to shape," *Former*—pron. forr-may, or *Façonner*—pron. fah-sonn-eh; also *Figurer*—pron. fee-guehr-eh, also *Organiser*—pron. ohrr-gah-neeze-eh; Ger. *Bilden*—pron. bil-denn; also *Fügen*—pron. fueh-genn.

Sharp. Synonymous with "acute," as with sharp edges; or keen cutting, as with a cutting tool. *Der.* The word comes from the Old English *scarp*, having a keen, fine edge. Syn. Fr. *Aigü*—pron. ah-guuh, or *Aceré*—pron. ah-sair-eh; also *Aigueuse*—pron. ah-gheuze, or *Affilé*—pron. ah-feel-eh; Ger. *Scharf*—pron. sharrf, or *Spitzig* (pointed)—pron. spits-eegh; also *Schneidend*—pron. shnide-end. Syn. Fr. for "sharp-cornered," *Avec angles saillants*—pron. ah-vekk ahn-gell sah-eel-ahn; Ger. *Scharfeckig* (sharp-angled)—pron. sharrf-ekk-eegh. Syn. Fr. for "sharp-edged," *A vive arête* or *fil*—pron. ah veeve ah-rate; also *Arête aigue*; Ger. *Scharf-* or *Spitzkantig*—pron. sharrf, speets-kahn-teegh. Syn. Fr. for "to sharpen," synonymous with to put a fine cutting or sharp edge on, *Aiguiser*—pron. ah-gweeze-eh; also *Affiler*—pron. ah-feel-eh. Syn. Fr. for "to sharpen a saw," *Affiler une scie*—pron. ah-feel-eh uehn see; also *Limer* (to file) *les dents de la scie*—pron. lee-may lay dahn deh lah see; Ger. *die Säge schärfen*—pron. dee zay-geh shah-eer-fen. Syn. Fr. for "sharpening," *Aiguisement*—pron. ah-gweeze-mahng; also *Fillement*; Ger. *Schärfen*. Syn. Fr. for "sharpness," *Acuté*—pron. ah-kweeh-tay; Ger. *Schärfe*—pron. shärr-feh.

Shavings, in Joinery Work. *Der.* The word shave comes from the Old English *scafen*. Syn. Fr. for "to shave," as with a spokeshave, *Planer*—pron. plah-nay; Ger. *Planiren*—pron. plah-neer-en. Syn. Fr. for "shavings," *Copeaux*—pron. koh-poh; also *Alésure*—pron. ah-lay-suuhr; Ger. *Abfälle*—pron. ahb-fell-eh.

Shell (see text). *Der.* Our word comes from the Old English *scell*, a hard outside covering. Syn. Fr. for "shell of a building" (used sometimes as synonymous with "carcass of a building," the outside walls and roof before the interior is finished), *Corps*; also *Carcasse*; Ger. *Gebäudemasse*. Syn. Fr. for "shell auger," *Foret cuiller*—pron. forr-eh kweel-yeh, or *Tarière à cuiller*—pron.

tarr-eh-air-ah; Ger. *Zahnbohrer*—pron. tsahn-hole-boh-rerr.

Shining. A synonym sometimes used for polished, as shining marble. *Der.* Our word shine comes from the German *scinan*. Syn. Fr. for "shining," *Luisant*—pron. lweeh-sahnt; also *Éclatant*—pron. eh-klah-tahng; Ger. *Glänzend*—pron. glent-sent.

Side (see text). *Der.* Our word comes from the Old English—is, in fact, the same word precisely, meaning the outer surface or margin of a body. Syn. Fr. for "side channel," *Rigole latérale* or *longitudinale*—pron. ree-goll lah-tare-ahl, lohn-jhee-tueh-dee-nahl; Ger. *Seitenrinne* or *kanal*—pron. zite-enn-rin-neh-kah-nahl. Syn. Fr. for "side cutting," as of a road, *Tranchée longitudinale* or *latérale*—pron. trahn-shay; Ger. *Anschnitt* or *Anstrich eines Weges*—pron. ahn-shnitt in-ess veh-ges. Syn. Fr. for "side face," *Profil*—pron. proh-feel; Ger. same word, or *Halb-gesicht* (half-face)—pron. halb-geh-zicht. Syn. Fr. for "side gable," *Traversier* or *Pignon à côté*—pron. trah-vairr-see-eh, peen-yon ah koh-tay; Ger. *Seitengiebel*—pron. zite-enn-ghee-bell. Syn. Fr. for "side rail," *Garde-corps à côté*, or simply *Garde-corps*; Ger. *Brustgeländer*—pron. broost-geh-lenderr, or simply *Geländer*. Syn. Fr. for "side piece," *Pièce de côté*—pron. pee-ace deh koh-tay; also *Montant de chassiss*—pron. mohntahn deh shah-see; Ger. *Seitenstück*—pron. zite-en-stuek. Syn. Fr. for "side room," *Chambre débarras*—pron. shahm-berr day-barr-ah, or simply *Débarras*, or *Décharge*—pron. day-sharjh; Ger. *Nebenzimmer*—pron. nay-ben-tsim-mer.

Sliding of one part upon another. *Der.* Our word comes from the Old English *slidan*, to slip or move along a surface, to glide. Syn. Fr. for "sliding face," *Face au côté glissant*—pron. fahss oh koh-tay glees-sahng, or *Face coulante* (from *couler*, to flow)—pron. kooh-lahnt; Ger. *gleitende Oberfläche*—pron. gly-ten-deh oh-berr-flah-eek-eh. Syn. Fr. for "sliding sash," *Châssis à coulisse*—pron. shah-see ah kooh-leece; Ger. *gleiten-des Fenster*. Syn. Fr. for "sliding shutter," *Volet à coulisse*—pron. voh-lay; Ger. *gleiten-der Laden*—pron. lah-den, or *gleitender Fensterladen*. Syn. Fr. for "sliding door," *Porte glissante*; Ger. *gleitende Thür*—pron. tuehrr.

Slip, synonymous with "slide." *Der.* The word comes from the Old English *slipan*, to move along the surface without vertical motion or movement or rolling. Syn. Fr. for "to slip," *Glisser*—pron. glee-zay; Ger. *Gleiten*—pron. glide-en. Syn. Fr. for "slip or fall of earth or soil," *Chute du terrain*—pron. shuut duh terraihn, or simply *Chute*; also *Eboulement*—pron. eh-bool-mahn; Ger. *Erdschlipp*—pron. erdd-shleepp.

Split. Synonymous with "split." *Der.*

Our word comes from the Old English *slitan*, to cut or separate in the direction of the length of a body, as to cut a cane into narrow strips. Syn. Fr. for "to slit," *Taillader*—pron. tahl-yah-day; also *Se fendre* (which, however, more properly is to cleave, which some use as synonymous with slit); Ger. *Schlitzen*—pron. shlits-en. Syn. Fr. for "a slit," part of a body partially separated from the main portion, *Rainure*—pron. ray-nuehr; Ger. *Nath*—pron. naht; also *Falz*—pron. fahlts; also *ein Schlitz*—pron. ine shlits. Syn. Fr. for "slitting," *Fendage*—pron. fahn-dahj, or *Fendillage*—pron. fahn-deel-yahj; Ger. *Schlitzung*—pron. shleets-oong.

Smear. To rub over with an unguent or a paint or tar, etc. *Der.* Our word comes from the Old English *smieran*, from *smear*, fat, grease. Syn. Fr. for "to smear," as a bolt or a key with grease to make it drive more easily, *Enduire*—pron. ahn-dweer; also *Tacher*—pron. tah-shay; Ger. *Beschmieren*—pron. beh-shmeer-en.

Snap, To. When a piece of timber, subjected to a great strain, breaks suddenly in two, it is said to snap. The term, however, applies rather to small pieces of material than to large, the term break or rupture being generally applied in the latter case. *Der.* The word comes from the German *schnappen*, or the Icelandic *snappa*, to break in two suddenly. Syn. Fr. for "to snap," *Casser subitement*—i.e. to break suddenly—pron. kah-say sueh-beet-mahn; Ger. *Abbrechen*. Syn. Fr. for "to snap off," *Se détacher subitement*—pron. seuh day-tash-ay; also *Se casser*, or *Se rompre*; Ger. *Kurz abbrechen*—pron. koorts ap-brech-en.

Soaking Soil. A soil saturated with water. A soaked soil or timber, etc., is a condition designated by the synonym "saturated"—that is, in which the pores of the body are filled with the liquid, as timber is preserved by being saturated with some chemical substance, as corrosive sublimate, or under pressure with tar. *Der.* The word saturated is from the Latin *saturare*, to fill or impregnate with water or other liquid. The derivation of the word soak is doubtful, unless it be a corruption of the word *suck*, as a body saturated or soaked becomes so from having sucked in so much liquid. Syn. Fr. for "to soak," *Tremper*—pron. trahm-pay; Ger. *Weichen*—pron. vy-chen. Syn. Fr. for "soaked soil," *Terrain* or *Sol trempé*—pron. taihr-ahn, soll trahm-pay; Ger. *eingeweichter Grund*—pron. ine-geh-vych-ter ground.

Socle. A synonym borrowed from the French, synonymous with plinth, pedestal (which see); Ger. *Grundstein* or *Theil unter den Säulen*—pron. ground-stine, tile oon-ter dane zoy-len, or simply *Säulenstuhl*—pron.

-stool. Syn. Fr. for "sockle of a wall," *Pied de mur*—pron. pee-ay deh muehr; Ger. *Untersatz einer Mauer*—pron. oohn-terr-zahts ine-er mower.

Sod. A synonym for "grass turf." Syn. Fr. *Gazon*—pron. gah-zohn, or *Végétale*—pron. veh-jhay-tahl; also *Motte de gazon* or *terre*—pron. mott deh gah-zohn, tairr; Ger. *Rasen*—pron. rah-zen; also *Erdscholle*—pron. airrd-shol-leh. Syn. Fr. for "sod-work or turfing," as the terrace of a house, *Gazonnage*—pron. gah-zoh-nahj; Ger. *Rasenarbeit*—pron. rah-zen-arr-bite. Syn. Fr. for "to cut the sod," *Couper le gazon*—pron. kooh-pay leuh gah-zon; Ger. *den Rasen schneiden*—pron. dane rah-zen shnide-enn.

Soften, To (see Soft in text), as putty. Syn. Fr. *Amollir*—pron. ah-moll-ee; Ger. *Weich machen*—pron. vych mach-en. Syn. Fr. for "softening," *Amollissement*—pron. ah-moll-cess-mahng; Ger. *Erweichen*.

Spar. A mineral used in garden work for ornamental rockeries, or in a crushed or powdered state for the upper covering or surface of garden walks. *Der.* Our word comes from the Old English *sparatan*, white or chalk stone. Syn. Fr. for "spar," *Spath*—pron. spahtt; Ger. *Spath*. Syn. Fr. for "calcareous spar," *Spath calcaire*—pron. spahtt kahl-kare; also *Spath* or *Chaux carbonatée cristallisée*—pron. show karr-boh-nah-tay kreess-tah-lee-zay; Ger. *Kalkspath*—pron. kahlk-spahtt. Syn. Fr. for "spar rafter of a roof," *Chevron de ferme* or *de comble*—pron. shev-rohn deh fairm, kohmbel; Ger. *Dachsparren*—pron. dach-spahrr-reenn. Syn. Fr. for "sparring," *Spathique*—pron. spahtt-EEK; Ger. *Spathing*—pron. spah-teeg.

Spare Room, in House Architecture. A room set apart for emergencies, as for a visitor. *Der.* Our word spare comes from the Old English *sparian*, to be frugal with, to hold as valuable. Syn. Fr. for "spare room" (generally applied to bed-chamber), *Chambre à dérobée* or *à coucher dérobée*—pron. shahm-berr ah koo-shay deh-roh-bay; Ger. *Gastzimmer* (guest room)—pron. gahst-tsim-mer. Syn. Fr. for "spare materials," *Matériaux de secours* or *pour rechange*—pron. mah-tare-ee-oh deh say-koor, poor ray-shahnj; Ger. *übrig gelassene* or *reservirte* or *Nothdurft Materialien*—pron. geh-lass-en-neh mah-tare-ee-ahl-yen.

Spatter, To—Spattering. Terms sometimes used in building and painting to indicate that materials, as lime and small gravel, as in rough casting, or paint is scattered or sprinkled over a surface. *Der.* Uncertain; one view is that it is a corruption of scatter, another that it is a corruption of spitter. Syn. Fr. for "to spatter," *Cracher*—pron. krash-eh; also *Eclabousser*—pron. eh-klah-booh-zay; Ger. *Bespritzen*—pron. beh-spree-sen.

Speckled Wood. *Der.* Our word speck

comes from the Old English *specca*, a spot, a stain. Syn. Fr. for "speck," *Tache*—pron. tahsh; also *Point*—pron. pwahn; Ger. *Fleck*—pron. flekk. Syn. Fr. for "to speckle," *Tacheter*—pron. tah-sheh-tay; Ger. *Beflecken*—pron. beh-flekk-en. Syn. Fr. for "speckled wood," *Bois tacheté* or *pointé*—pron. bwah tah-sheh-tay, pwahn-tay; Ger. *Fleckig*—pron. flekk-ich.

Spring (see text for derivation and certain terms). Syn. Fr. for "spring well or fountain," *Puits*—pron. pweet; Ger. *Brunnen*—pron. broon-nen; also *Quelle*—pron. quell-eh. Syn. Fr. for "spring water," *Eau de puits* or *source*—pron. oh deh pwee, soorce; Ger. *Brunnen* or *Quellwasser*. Syn. Fr. for "underground (as of a foundation) spring," *Veine de l'eau*—pron. vain deh loh, or simply *Veine*; also *Puits souterrain*—pron. sooh-tare-ayng; Ger. *unterirdischer* or *-dische Brunnen* or *Quelle*—pron. oohn-terr-ear-disher. Syn. Fr. for "furnished or fitted with a spring," *à Ressort*—pron. ah ray-zorr; Ger. *mit einer Feder*—pron. mit ine-er fay-der, or *mit Federn*—pron. fay-der-n. Syn. Fr. for "the spring barrel or box of a window blind," *Boîte du ressort pour la jalousie d'une fenêtre*—pron. bwaht duh ray-zorr poor lah jah-loo-zee duuhn fay-nay-terr; Ger. *Büchse* or *Kasten für die Feder des Fensterrollens*—pron. buekk-seh, kahs-tenn fuerr dee fay-der dess fenn-sterr row-loce. Syn. Fr. for "spring of a beam," *Elasticité d'une poutre*—pron. ale-ah-steecce-ee-tay duuhn pooh-terr; Ger. *Elasticität eines Balkens*—pron. ale-ass-teecce-eeh-tatt ine-ecce bahl-kens. Syn. Fr. for "spring dividers" (or compasses or drawing instrument), *Compas à vis* or *à ressort*—pron. kohmm-pahss ah vee, ray-zorr; Ger. *Federzirkel*—pron. fay-derr-tseer-kel. Syn. Fr. for "spring door," *Porte à ressort*—pron. pohrt; Ger. *Federdruckthür*—pron. fay-derr-drook-tuehr. Syn. Fr. for "springy," as applied to a beam, *Elastique*—pron. eh-lass-teek; also *Qui fait un ressort*—pron. keeh fayt uuhn ray-zorr; also (as applied to a soil or site which has an abundance of water sources), *Terrain avec abondance de sources* or *puits*—pron. tare-raihn ah-vekk ah-bohn-dahnce deh soorrs, pweet; Ger. *Federhart*—pron. fay-der-hahrt, or *Elastisch*—pron. eh-lass-tish; also *Federkräftig*—pron. -krah-eef-tich, or, for the second application, *Grundquellenreich*—pron. groohnt-quell-en-rych.

Sprinkle. Der. Our word comes from the Old English *sprike*, to spread or scatter a liquid in drops. Syn. Fr. for "to sprinkle," *Arroser*—pron. ah-roh-zay; also *Pleuvoir*—pron. pleuh-vwair; Ger. *Sprengen*—pron. spreng-en; also *Anstreuen*—pron. ann-struyh-enn. Syn. Fr. for "to sprinkle paint" (marbling otherwise called), *Chiqueter*—pron. sheek-tay; Ger. *Marmorfarben sprengen*—pron. marr-morr-farr-benn. Syn.

Fr. for "sprinkling brush," *Arrosoir*—pron. ar-roh-swair; also *Ecovette*—pron. eh-koch-vett; also *Ventelle*—pron. vahng-tell; Ger. *Sprengwedel*—pron. spreng-vay-del. Syn. Fr. for "sprinkling," *Arrosage*—pron. ah-roh-zahj; Ger. *Besprengung*—pron. bay-spreng-oohng.

Squeeze. A synonym for to crush or press forcibly, as a timber wedge is crushed or squeezed under great pressure. Der. Our word comes from the Old English *cwisian*, to crush or press between two bodies. Syn. Fr. for "to squeeze," *Presser*—pron. press-eh; also *Exprimer*—pron. aiks-press-may; Ger. *Quetschen*—pron. quett-shen; also *Auspressen*—pron. owss-press-en, or simply *Pressen*. Syn. Fr. for "squeezing or crushing," *Froisse* or *Pressement*—pron. frwahss-, press-mahn; Ger. *Quetschung*—pron. quett-shoong.

"S"-shaped Bracket or Bearing Plates. For staying or strengthening buildings by means of iron tie-rods, stretching from side to side; the screw-nuts used to tighten up the rods are made to butt against iron plates to give a large bearing surface. These are made generally of cast-iron of neat form, sometimes of wrought-iron. In old buildings a form much used, and still adopted in some instances, was narrow wrought-iron bands, formed ornamentally into a curve of contrary flexure; hence called "S-shaped." Syn. Fr. *Plaque de fer à S*, or simply *Fer à S*; also *Plaque de mur* (wall-plate), *un fer en forme S*—pron. plahk deh muehr, uhn ferr ahng formm s; Ger. *S Eisen*; also *S-förmige Mauerplatte von Eisen*—pron. s foerr-mich-eh mow-err-plat-teh fonn i-zen or *S-förmiger Mauerhaken* (wall-hook), or simply *S Haken*.

Stationary, in Construction. An object or body which is designed to remain in one definite position, to be fixed or permanent. Der. Our word comes from the Latin *statio*, and this from *stare*, to stand, or Old English *standian*, standing. Syn. Fr. *Fixe*—pron. feeks; Ger. *Stehend*—pron. stay-ent. The term stationary applies also to the drawing paper, account books, memoranda required by the builder and architect. Syn. Fr. for this term, *Articles de papeterie*—pron. ahrr-teek-ell deh pahp-terr-eeh, or pahp-treeh; Ger. *Schreibund Reizmateriale*—pron. shriebe-ooht rice-mah-tear-eeh-ahl-ee-en.

Stay (see text for certain terms). Syn. Fr. for "roofing stay," *Contrevent*—pron. kohnt-terr-vahn; Ger. *Windstütze*—pron. vind-stuett-seh. Syn. Fr. for "stay bar," *Vitrière*—pron. veeh-tree-airr; Ger. *Stehbalken*—pron. stay-bahl-ken. Syn. Fr. for "stay bolt," *Boulon montant*—pron. booh-lohn mohn-tahn; also *Etai*—pron. eh-tay; Ger. *Stehbolzen*—pron. stay-bolltsen. Syn. Fr. for "stay plank," *Planche pour renforcement*—pron. plahnsh poor

rahn-forss-mahn; Ger. *Stehdiele*—pron. stay-dee-leh.

Steam-engine, Portable, for builders. A steam-engine of small horse-power (from four to six or up to ten horse-power) capable of being transported from place to place on a wheeled framework, which carries the engine and boiler, or placed upon a foundation forming part of the whole machine, so that it can be at once set down at any convenient spot without incurring the necessity of making specially prepared foundations. The form of portable engines generally used by contractors for buildings is that in which both the boiler and the engine are vertical—the two being always combined in engines of this class—and which is very generally known by the name of “coffee-pot” engines, from the supposed resemblance of the boiler to this domestic utensil. Syn. Fr. for “portable steam-engine,” *Machine à vapeur portative* or *locomobile*—pron. mah-sheen ah vah-peuhr porr-tah-teef, loh-coh-moh-beel; Ger. *locomobile Dampfmaschine*—pron. loh-coh-moh-beel-eh dahmpf-mah-sheen-eh.

Stick. A term having a double meaning: first, as indicating small pieces or portions of wood, or parts of small branches of trees termed sticks; and second, as synonymous with to cause to adhere or remain fixed. Der. Our word comes from the Old English *sticca*, a staff of timber, part of a tree branch. Syn. Fr. for “stick,” as part of a faggot or bunch of small tree twigs or branches, *Bois à fagotin*—pron. bwah ah fah-goh-tahn; Ger. *dünnes Reisholz*—pron. duenn-ess rice-holts. Syn. Fr. for “polishing stick,” a piece of flat wood used as a burnisher, *Rodet*—pron. roh-day; Ger. *Polirholz*—pron. poh-leer-holts. Syn. Fr. for wood made into what we call sticks, *Bois batonnée*—pron. bah-toh-nay; Ger. *Verarbeitung in Stäbchen*—pron. ferr-arr-bite-oong in stayb-chen. Syn. Fr. for “to stick to,” in the sense of adhering or becoming fastened, *Coller*—pron. koh-lay; also *Attacher*—pron. ah-tash-ay; Ger. *Kleben*—pron. kleh-benn. Syn. Fr. for “to stick fast or close to,” *Adhérer*—pron. ah-dhare-eh; Ger. *Zusammenkleben*—pron. tzooh-sahm-men.

Stirrup. The iron strap used sometimes to connect the foot of a king-post of a roof with the tie-beam, or its head with the rafters—so called from its resemblance to the curved foothold of a horse saddle. Der. Our word comes from the Old English *stigerap* or *stirrap*, from *rap*, a rope, and *stigan*, mount, as a horse—a cord passing round the back of the horse and terminating at the hanging ends by loops in which the rider puts his feet. The loops are now made of iron called stirrup-irons, suspended by straps from the saddle. Syn. Fr. for “stir-

rup of a tie-beam,” *l'Etrier à fer d'un tirant*—pron. late-ree-ay ah fairr deuhn tee-rahn; Ger. *Balkenknierriemen von Eisen*—pron. bahl-ken-knee-ree-men fon i-zen.

Stop Piece or Stopping. A filling up of a hole. Syn. Fr. *Etanchement* (from *étancher*, to stanch, to stop)—pron. eh-tahnsh-mahn; also *Bouchement* (from *boucher*, to cork or stop up)—pron. boosh-mahn; Ger. *Ausstopfen*; also *Hemmung*, or *Stillung*. Syn. Fr. for “to stop up a hole,” *Reboucher un trou*—pron. ray-boosh-eh euhn trooh; Ger. *eine Höhle* or *ein Loch ausfüllen*—pron. ine-eh hoeh-leh or ine loch owss-fuell-en. Syn. Fr. for “a stop or stopping knife,” used by glaziers to fill up holes or make joints with putty, etc., *Couteau de mastic*—pron. koohtoh deh mah-steek; Ger. *Messer für Glasskitt*, or, inverted, *Glasskittmesser*—pron. glahss-kit-mess-er.

Stop Valve, for a Water Hydrant or Supply Pipe. This is a mechanical contrivance for controlling the supply of water, and consists usually of a circular conical valve fitted to a conical seat, terminating the pipe through which the water supply comes. Above the valve is a chamber, at the side of which there is a branch pipe delivering the water at any point desirable. The stem of the valve is continued upwards, and is raised or depressed by the rise or fall of a screw worked by a handle or hand-wheel at the upper side and outside of the chamber. By turning the hand-wheel in one direction the stop valve is pressed into its seat, shutting off the water from the point of delivery. By turning in the other direction the stop valve is released, and the pressure of water on its inner side raises it from its seat and allows the water to rush into the chamber, and from thence to the point of delivery. Syn. Fr. *Soupape d'arrêt d'un tuyau d'alimentation service de l'eau*—pron. sooh-pahp darr-eh duehn twee-yoh dah-lee-mahn-tah-seon serr-veece day loh, or simply *Soupape pour un tuyau de l'eau*; Ger. *eine Haltklappe für eine Wasserröhre*—pron. ine-eh haltt-klah-peh fuehr ine-eh vahs-ser-roeh-reh.

Stratum. The term used to denote the layers or beds in which soil and geological formations are placed in relation to one another. Der. The term is purely Latin, which we have borrowed without change: it signifies a layer. A synonymous term sometimes used is “couches.” This is from the French *couche* (from *coucher*, to lie down, to go to bed). The French use this, and not, as we do, the Latin word. Other synonyms are simply bed, or layer. Syn. Fr. *Couche*—pron. koosh; Ger. *Lage* (from *Lager*, a bed or couch, or *lagern*, to lay down)—pron. lah-geh; also *Schicht* (from *schichten*, to put into layers, rows, or beds)—pron. shicht. Syn. Fr. for “strata,” *Couches*—pron. koosh;

Ger. *von Strata*—pron. fonn strah-tah. Syn. Fr. for a body, as a stone, disposed with or parallel to or in line with the strata, *Sur couche*—pron. suehr koosh; also *Dans le sens des couches*—pron. dahng leh sahn day koosh; Ger. *in der Richtung der Lage* or *Schicht*—pron. in dare richt-oong dare lah-geh. Syn. Fr. for "against the strata," *Contre les couches*—pron. kohn-terr lay koosh, or *Contre le couche*; Ger. *der Lage* or *Schicht entgegen*—pron. dare lah-geh, schicht ent-gay-gen. Syn. Fr. for "stratification," same word, but pron. strah-tee-feeh-kah-seon; Ger. *Lagenweise* or *nach Schichtung*—pron. lah-genn-vize-eh, nach schicht-oohng. Syn. Fr. for "stratum or layer of soil or earth," *Couche* or *Lit de terre*—pron. koosh, lee deh tairr; Ger. *Erdlage* or *-schicht*. Syn. Fr. for "stratified," *Couchée*—pron. kooch-shay; Ger. *Aufschichtung*—pron. owff-schicht-oohng.

Subside, in Construction. A synonym for to sink or sink into, as a wall or the foundation of a wall subsiding—i.e. sinking into the soil, the weight or pressure of the wall overcoming or being greater than the resisting power of the soil. Der. The term comes from the Latin *sub*, under, and *sedere*, to sit—to sit under, to fall or sink to the bottom. Syn. Fr. *Tomber au fond* (to fall to the bottom); also *Baisser* (the more correct term in construction, and this meaning to let down)—pron. bayss-ay; also, and generally in the case of muddy liquids, as in filtration of water, *Laisser déposer* (to let it be deposited)—pron. layss-eh day-poze-eh; also, in this sense, *Se précipiter*—pron. seh pray-see-pee-teh; Ger. *Sinken*—pron. zin-ken, or *Fallen*—pron. fahl-len; also *Nachgeben*—pron. nach-geh-ben. Syn. Fr. for "subsiding," *Abaissement*—pron. ah-bayss-mahn; Ger. *Einsinken*. Syn. Fr. for "subsidence," *Chute au fond*—pron. shuet oh fohnd, or *Précipitation*—pron. pray-see-pee-tah-seon; also *Affaissement*—pron. ah-fayss-mahn, or *Abaissement*; Ger. *das Sinken* or *Fallen*.

Subsoil. The soil lying immediately under the upper layer or stratum of earth or the natural surface-soil. Syn. Fr. *Soussol*—pron. sooh-soll, or *Sol sous la première couche*—pron. soll sooh lah prem-yare koosh; Ger. *Untergrund*—pron. oohn-terr-ground.

Substance. A term used as synonymous with a solid body, as contradistinguished from a liquid, which, however, is a substance, but generally designated a liquid substance to distinguish it from a solid. The word is also used to denote that a body is of good quality, as in the phrase "good substance." Der. The word is from the Latin *substantia*, and this from *sub*, under, and *stare*, to stand, to stand under, to be firm, solid. Syn. Fr. (same word as ours)—

but pron. suhb-stahnce; Ger. *Substanz*—pron. soohb-stants; also *Stoff*.

Substantial. A term much used in the specification of building work, as "the whole to be built or constructed in a sound and substantial manner," the meaning of which is obvious, bearing in mind the origin of the term. Der. From the Latin *substantia*, and this from *sub*, under, and *stare*, to stand: to stand under, to be firm, solid. Syn. Fr. *Substantiel*—pron. suehb-stahn-see-ell; also *Fort solide*—pron. forr soh-leed; Ger. *Selbstständig*—pron. zellbst-stend-ich.

Superposed. A term used to indicate that one body is placed upon the top of another. Of two bodies, one of which rests upon another, the uppermost is said to be superposed. Der. The term comes from the Latin *supra*, above, and *ponere*, to place. Syn. Fr. for "to superpose," *Superposer*—pron. sueh-pare-poh-zay; Ger. *Ueberlegen*—pron. ueb-err-lay-genn. Syn. Fr. for "superposed," *Superposée*—pron. sueh-pare-poh-zay; Ger. *Ueber einander legend*—pron. ueb-err ine-ahn-derr lee-gend. Syn. Fr. for "superposition," same word as ours, but pron. sueh-pare-poh-zee-seon; Ger. *Ueberlagerung*—pron. ueh-berr-lah-gerr-oohng.

Surface (see text). Der. Our word comes from the French *sur*, upon, and *face*, face, or from the Latin *super*, above, and *facies*, a form or shape—"the above or upper form or shape." Syn. Fr. for "surface," *Surface*—pron. suehr-fahss; Ger. *Fläche*—pron. flech-eh. Syn. Fr. for "convex surface," *Surface convexe*—pron. suehr-fahss kohn-vaix; Ger. *Convexe Fläche*. Syn. Fr. for "concave surface," *Surface concave*—pron. kohn-kahv; Ger. *Konkave Fläche*. Syn. Fr. for "plain or even surface," *Surface dégauchie*—pron. day-goh-shee, or *Surface plate*—pron. plahte; Ger. *Platte Fläche* or *Ebene Fläche*—pron. eh-ben-eh flech-eh. Syn. Fr. for "to take off the surface," as of wood, *Effleurer la surface*—pron. eh-fleuhr-ray lah suehr-fahss; Ger. *Fläche abnehmen*. Syn. Fr. for "oblique surface," *Surface oblique*—pron. oh-bleek; Ger. *schräge Fläche*—pron. shray-geh flech-eh.

Suspension. Der. Our word suspend comes from the Latin *sus*, under, and *pendere*, to hang. Syn. Fr. for "to suspend," *Suspendre*—pron. suehss-pahn-derr; also *Faire dépendre*—i.e. make to hang from—pron. fare day-pahn-derr; Ger. *Suspendiren*—pron. soos-pen-deer-en; also *Aufhängen*—pron. owff-heng-en. Syn. Fr. for "suspension bridge," *Pont en chaînes*—pron. pohnt ahn shain or shenn; also *Pont suspendu avec chaînes*—pron. suehss-pahn-dueh ah-vekk shains; Ger. *Hängebrücke*—pron. ha-eng eh-bruek-eh. Syn. Fr. for "suspension" (same word as ours)—pron. suehss-pahn-seon; Ger. *Suspension*—pron. soos-pen-zee-ohn. Syn. Fr. for "suspension beam,"

Soupeute—pron. sooh-pahnt; Ger. *Hängebalken*—pron. heng-eh-bahl-ken.

Sustain, To. Der. Our word comes from the Latin *sustinere*, to hold, to keep up, from *sub*, under, and *tenere*, to hold. Syn. Fr. for "to sustain," *Soutenir*—pron. sooh-ten-er; also *Supporter*—pron. sueh-por-ray; Ger. *Stützen*—pron. stueht-sen, or *Unterstützen*—pron. oohn-terr. Syn. Fr. for "sustainer," *Support*—pron. sueh-pohr; Ger. *Stütze*—pron. stuet-seh. Syn. Fr. for "sustained," *Supporté*—pron. sueh-pohrray; also *Soutenu*—pron. sooh-ten-ueh.

Sward. A synonym for the grass-covered turf, as that of a lawn. Der. The word comes from the Old English *sweard*, grassy land or turf. Syn. Fr. for "sward," *Gazon*—pron. gah-zohn; also *Pelouse*—pron. pay-looze; Ger. *Rasen*—pron. rah-zen. Syn. Fr. for "cutting (the grass of) a greensward," *Etrepage*—pron. eh-terr-pahj; also *Gazonage*—pron. gah-zonn-ahj; Ger. den *Rasen schälen* (from *schalen*, to pare)—pron. denn rah-zen shah-len; also *Scheidene den Rasen*—pron. shide-enn.

Swing, To. A synonym for to oscillate, vibrate, or move to and fro. Der. The word comes from the Old English *swingan*, having the last-named meaning; it may come from the German word now to be given. Syn. Fr. *Se balancer*—pron. seuh bahl-ahn-say; also *Tournoyer*—pron. toohr-nwah-yea; Ger. *Schwingen*—pron. shving-en. Syn. Fr. for "a swing," in garden or playground fittings, *Bascule*—pron. bah-skuehl; Ger. *Schwung*—pron. shvoong. Syn. Fr. for "swing bridge," *Pont balancé* or *tournant-aussi* or *flottant*—pron. pohn bah-lahn-say, toohr-nahn-oh-see, floh-tahn; Ger. *Schwingbrücke*—pron. shving bruek-eh; also *Drehbrücke* (from *drehen*, to draw). Syn. Fr. for "swing door," *Porte balancée* or *tournant-aussi* or *flottant*—pron. pohrt; Ger. *Schwingthür*—pron. shving-tuehr. Syn. Fr. for "swing window," *Fênetre flottante*—pron. fay-nay-terr floh-tahnt; Ger. *Schwingfenster*—pron. fenn-sterr. Syn. Fr. for "swing gate," *Porte à claire voie coulante*—pron. pohrt ah klaire vwah kooch-lahnt; Ger. *Schwinggatterthür*—pron. shving-gah-terr-tuehr.

Swivel. A term used as synonymous with to turn round, move on a point, as a centre. Der. Our word comes from the Old English *swifan*, to move quickly round, to revolve. Syn. Fr. for "a swivel," *Anneau mobile* (a movable ring)—pron. ah-no moh-beel; also *Pierrier*—pron. pee-err-ee-yea; Ger. *Wirbel*—pron. veer-bell. Syn. Fr. for "swivel bridge" (see term "swing bridge"). Syn. Fr. for "swing table," *Table à rotule*—pron. tah-bell ah roh-tuehl; Ger. *Schwingtisch*—pron. shving-tish.

Symmetrical, in Architectural Design. A term used to indicate that the parts are

well proportioned—i.e. well arranged or balanced. Der. A good idea of the term will be gained from the derivation of the word symmetry, which comes from the Latin *symmetria*, and this from the Greek *sûn*, with, and *metron*, a measure, arranged according to measure or proportion. A part is said to be symmetrical with another when the two are well proportioned in parts, or properly disposed in relation to each other—the whole giving the idea of what is known as a well balanced design—no one part having an undue preponderance over the other. Syn. Fr. for "symmetry," *Harmonie*—pron. arr-moh-nee, or *Symétrie*—pron. seem-eh-tree; also *Proportion*—pron. proh-por-seon; also *Eurythmie*—pron. oohr-eet-mee; Ger. *Ebenmass* ("even measure")—pron. eh-ben-mahss; also *Gleichmass* (like measure)—pron. glych-mahss. Syn. Fr. for "symmetrical," *Symétrique*—pron. seem-eh-treek; Ger. *Gleichmässig*.

Systematic order or arrangement. Der. The word comes from the Latin *systema*, and this from the Greek *sustema*, which is from *sunistemi*, to place together in accordance with some definite arrangement. System, plan, or order is indispensable to the right doing of work of all kinds; without it time is lost, materials and money wasted, and the work likely to be done in a faulty way. Syn. Fr. for "system," *Système*—pron. seece-tame; Ger. *System*—pron. seece-tame. Syn. Fr. for "systematical" (often used as a synonym for "symmetrical"), *Systématique*—pron. seece-tame-ah-teek; Ger. *Systematisch*—pron. sis-tame-ah-tish.

Style, in Architecture. That arrangement of columns or pillars in which the distance between the pillars is equal to twice the diameter of the pillar or column. Der. The word comes from the Latin *systemos*. Syn. Fr. *Systyle*—pron. see-steal; Ger. *Nahsäulig* ("near pillared")—pron. nah-zoy-lich.

Tar. A black viscid, glutinous liquid, used in constructive work to preserve timber, or cover wall surfaces with to keep them dry. Tar is of two kinds—vegetable and one of the by-products of coal-gas making, to which may be added a third variety, bituminous pitch or asphalte tar. Vegetable tar, the product of resinous trees, such as the pine and fir, is the finest; that known as Archangel tar, a north-of-Europe port, has perhaps the highest reputation. Der. The word comes from the Old English *teru*. Tar in construction, and generally coal gas-tar, is used to cover or paint timber-work, as roofs of sheds. When mixed with fine dry, clean sharp, river sand, or if this be sprinkled pretty thickly over the newly put-on tar, the protecting covering thus afforded

lasts much longer, and is more effective in turning wet, resisting damp, etc., than a covering of tar only. Asphaltic tar or melted asphaltic or bitumen is largely used in the making of pavements, etc. Syn. Fr. for "tar," *Goudron*—pron. gooh-drohn; Ger. *Theer*—pron. tare. Syn. Fr. for "resinous or vegetable tar," *Goudron résinique* or *végétal*—pron. ray-zeen-eek, vay-jay-tahl; Ger. *Harztheer*—pron. harrts-tare. Syn. Fr. for "mineral tar," *Goudron minéral* or *bitume*—pron. mee-nare-all, beeh-tuehm; Ger. *Asphalttheer*, or *Bergtheer*. Syn. Fr. for "tar brush," *Guipon*—pron. gwee-pohn; also *Brosse pour goudronner*—pron. bross poor gooh-dronn-eh; Ger. *Theerpinsel*—pron. tare-pin-zell. Syn. Fr. for "a tarred wall," *Une mur goudronnée*; Ger. *betheerte Mauer*—pron. beh-tairr-teh mow-err.

Temple, in *Grecian* and *Roman Architecture*. A building erected in honour of one or other of the deities of the Greeks or Romans, on which they lavished all the riches of their architectural styles. The subject is here alluded to as it was in connection with the Grecian temple that the peculiarities of columnar arrangement, or of the position which the pillars, used to decorate the building, held in relation to it and to one another, originated and were displayed. The following is a brief description of the peculiarity of the different classes of temples. (1) When the main building had pilasters at the angles, which terminated the side walls, and projected beyond the surface of end wall, the arrangement was termed "in antis"—in this the pilasters were called "antæ," sometimes "parastatæ." (2) When the main structure had only a portico formed with pillars at the front or façade, the arrangement was known as "prostyle" (*pro*, before, and *stylos*, a pillar or column). (3) When the building had a portico not only at the front but at the back or other end, the arrangement was termed "amphiprostyle," from the Greek word *amphi*, both, and *pro-stylos*. (4) When the temple had a series of pillars or columns in single row or range—termed a colonnade (which see)—all round, the style was called "peripteral," from the Greek word *peri*, around, or from *peripatein*, to walk about. (5) When the structure had a double colonnade, or two rows or ranges of columns all round it, the arrangement was called "dipteral," from the Greek words *dis*, double or two, and *pteron*, a feather, double winged. (6) When the inner row or range of pillars was omitted, or the dipteral was imperfectly developed, the style was called "pseudo-dipteral," from the Greek word *pseudos*, a falsity, a counterfeit—false dipteral. (7) When the building had the space which it enclosed roofless, or the interior space open to the

sky, it was called "hypæthral." (8) When the structure was round and without a cella, the arrangement was called "monopteral," from the Greek word *monos*, alone or single. Temples were also classified or distinguished by the arrangement of their pillars. The different arrangements were as follows:—(1) When the columns were set very closely together, a space equal to $1\frac{1}{2}$ times the diameter of the column being placed between each two, the arrangement was called "pyncostylos." (2) When the columns were placed round the buildings at distances from each other of two diameters, the arrangement was called "systylos." (3) When the columns were interspersed at $2\frac{1}{4}$ times the diameter, the style was called "eustylos," this being held to be the best or purest style. (4) When the pillars were placed at distances apart equal to their diameter, the style was called "diastylos." (5) When placed at intervals greater than in the last-named style, as four diameters, the style was called "araeostylos." *Der.* The word temple comes from the Latin *templum*, meaning a space marked out, and this from *tempulum*, the diminutive of *tempus*, a portion or part cut off. Syn. Fr. (same word as ours)—pron. tahn-pell; Ger. *Tempel*—pron. tem- or tame-pell.

Tendency. A term often used in connection with materials and construction, as a beam having a tendency to deflect or bend, or a stone to break or rupture; synonymous with having an inclination for, or as possessing some characteristic, as weakness from defective size, or some peculiarity, as softness, tending to a certain result, as rupture. *Der.* The word comes from the Latin *tendere*, to incline to, to bend towards, to tend to. Syn. Fr. for "tendency," *Tendance*—pron. tahn-dahnce; Ger. *Tendenz*—pron. ten-dents; also *Richtung*—pron. rich-toong.

Texture. A term sometimes used in connection with materials, as stone or timber, etc., as synonymous with grain or vein or composition, a fine-grained wood, wood of fine texture—stone of fine texture meaning of fine grain. *Der.* From the Latin *textura*, and this from *texere*, to weave, *textum*, woven. Although often used, the term is inapplicable to any solid material used in construction, such as stone or timber, and is only applicable to substances spun and woven, as will be seen from the derivation. Hence, so far as the materials of construction or of house fitting are concerned, it is only properly applicable to the materials used by the cabinet maker or upholsterer, such as hangings for windows, haircloth, and the like. The term may be allowable in relation to leather used by most trades, which, although not a woven fabric, may be classified by its texture—

a term in such a case synonymous with grain. Syn. Fr. *Tissu*—pron. tee-sueh; Ger. *Gewebe*—pron. geh-vay-beh, one of the meanings of which is "a web" (as of cloth)—from *weben* (vay-benn), to weave; also *Verbindung*—pron. fare-been-duuhng, which as applied to stone or timber is more applicable than the word *Gewebe*, texture, inasmuch as it means a binding together or a union, as of particles or fibres—strictly, however, threads or yarns. The word "texture" is often applied to soil of geological strata to indicate the condition of the layers—that is, their thickness or thinness; as, for example, the texture of slaty soil or of slate itself, the thinness of the lamina or plates. Syn. Fr. for texture in this connection, *Couche*—pron. koosh; also *Tissu du sol* or *terrain*; Ger. *Textur*, or *Erde-textur*—pron. taix-tuuh.

Tholobate. A term of comparatively recent introduction in architectural nomenclature, to denote the part of a building on which a cupola or a dome is supported, or on which the timbers of its framework if of wood, or the blocks of stone, rest. Der. The word is taken from the Greek *tholos*, a dome or a circular building. Syn. Fr. *Tholobate*—pron. toe-loh-baht; also *Tambour de dome* ("drum of the dome")—pron. tahm-boohr deh dome; also *Tholus*—pron. toe-lueh; Ger. *Kuppel*—pron. koop-pel, or *Kuppelbau*—pron. bow (ow as in now); also *Kugelgewölbe*—pron. koo-gel-geh-voell-beh; also (which is the more correct term) *Kuppeluntersatz*—literally "the undersat, foundation, springing, or supporting point of the cupola"—pron. koop-pel-oohn-terr-zahs; and finally, as applied to a circular building, *Rotunde*—pron. roh-toon-deh.

Thorough. A synonym for "through," a term in masonry (which see). Syn. Fr. for "thoroughfare," *Une passage*—pron. uehn pah-sajhe; Ger. *Durchfahrt*—literally "through walk or passage"—pron. doorch-fahrt. Syn. Fr. for a "through light or aperture," as distinguished from a false or sham opening, as a dead window, *Jour à travers*—pron. jhoor ah trah-vair; Ger. *Durchstreichendes Licht*—literally "a through-striking light"—i.e. daylight striking through—pron. doorch-striche-endes licht.

Tilt, To. Der. The word comes from the Old English *tealtian*, to waver, meaning generally, as in the phrase tilt up, to raise one end of the body higher than the other, as in dealing with a block of stone or a timber beam, where each is laid at an angle or oblique to a given line. Syn. Fr. for "to tilt a beam," *Incliner un poutre en avant*—pron. aihn-klee-nay uehn pooh-terr ahn ah-vahn; also *Bacher*—pron. bah-shay; Ger. *einen Balken stechen*—pron. ine-en bahl-kenn stech-en, or *turnieren einen Balken*—pron.

toohr-near-en. Syn. Fr. for "tilted beam," *une Poutre bachée*—pron. bah-shay, or *une Poutre inclinée en avant*; Ger. *ein turnierter Balken*.

Tinselling, in Cabinet Making and Painting. The covering of a surface with a material or substance having a shining, glistening, sparkling appearance. Der. Our word tinsel comes from the French *étincelle*, a spark, and this from the Latin *scintilla*, a spark, meaning something very shining. Syn. Fr. for "tinsel," *Clinquant*—pron. klaihn-kahn; also *Oripeau*—pron. or-ee-poh; Ger. *Flittergold* (from *flittern*, to glitter)—pron. flit-terr-gollt. Syn. Fr. for "to tinsel," *Orner de clinquant*—pron. orr-nay deh klain-kahn; Ger. *mit Flitterwerk zieren*—pron. mit flit-terr-vairrk tseer-en. Syn. Fr. for "tinselled," *Orné de clinquant*.

Tissue. A term synonymous with texture or vein, as of wood, or in connection with woven fabrics, as window hangings in upholstery work, meaning the character of the fabric, its body, fineness, or the reverse. Syn. Fr. for "tissue," *Tissu*—pron. tee-sueh, or *Tissage*—pron. tee-sahj; also *Corps d'étoffe*—literally "body of the stuff"—pron. coarr day-toff; Ger. *Gewirk*—pron. geh-veerk, or *Gewebe*—pron. geh-vay-beh. Syn. Fr. for the "cellular tissue" of wood, *Tissu cellulaire de bois*—pron. cell-ueh-laire deh bwah; Ger. *das Gewebe des Holzes*—pron. dass geh-vay-beh dess holl-tsess. Syn. Fr. for "tissue paper," *Papier de soie*—literally "silk paper," one of our synonyms for this extremely thin and light paper, used for a great variety of purposes—pron. pah-peeay deh swah; also *Papier à serpente*, or simply *Serpente*—pron. serr-pahnt—from *serpent*, a serpent, or from *serpenter*, to wind (see below); Ger. *Seidenpapier*, silk paper (from *Seide*, silk)—pron. zy-den-pah-peer; also *Schlängelpapier* (from *schlängeln*, to wind, or from *Schlange*, a snake, meaning that the paper is easily wound round a body, referring to its use in wrapping: the latter derivation is seen in the French synonym of *serpente*, as above)—pron. shlang-el.

Transmit, To. A term used in the mechanics of architecture or building, as one beam is said to transmit the force or pressure put upon it to another beam on which it rests or by which it is supported. Der. The word comes from the Latin *trans*, through, and *mittere*, to send. Syn. Fr. for "to transmit a pressure," *Transmettre une pression*—pron. trahnns-met-terr uehn press-ee-on; Ger. *einen Druck durchlassen*—pron. ine-en droock doorch-lahss-en. Syn. Fr. for "transmission of a pressure," *Transmission de pression*—pron. trahnns-meess-ee-on; Ger. *Durchlassung des Druckes*—pron. doorch-lahss-oongh dess droock-es.

Transparent. A term, as applied to

glass, for example, to indicate that objects can be seen through it, or that it transmits or conveys light through it. *Der.* The word comes from the Latin *trans*, through, and *parare*, to appear. Syn. Fr. for "transparent," same word as ours, but pronounced trahns-pah-rahn; also *Diaphane*—pron. dee-ah-fahn, and this, the synonym for our word diaphanous, comes from the Greek *diaphanes*, from *dia*, through, and *phanein*, to shine, to show through; Ger. *Durchsichtig* (seen through)—pron. doorch-zich-tich. Syn. Fr. for "transparency," *Transparence*—pron. trahns-pah-rahnce; also *Translucidité*—pron. trahnce-lueh-see-dee-tay; Ger. *Durchsichtigkeit*—pron. doorch-zich-tich-kite. The word "translucent" is often used, but not with absolute correctness, as synonymous with transparent—as in the last-named term from the French. This word comes from the Latin *trans*, through, and *luceo*, I shine. Syn. Fr. (see above); Ger. *Durchscheinend*—pron. doorch-shine-ent.

Treatment. A term used in connection with architectural design, as the treatment of the subject on the design of a building, applied also to its details. *Der.* The word comes from the Latin *tractare*, or from *trahere*, to draw, or from the French *traiter* (to draw)—pron. tray-tay; Ger. *Behandeln*—pron. beh-hahn-delln. Syn. Fr. for "architectural treatment," *Traitement architectural*—pron. trayt-mahn arr-kee-teck-tueh-rah!; Ger. *Behandlung in der Baukunst*—pron. bay-hahnd-loohng in dare bough-koonst.

Tunnel. A subterranean passage or way, either cut through the solid rock or if through soil lined with masonry or brick-work. Tunnels of comparatively small dimensions, as for the conveyance of water or sewage liquid, are generally in building termed culverts or large sewers or drains; but earth or rock pierced for the work is almost always said to be tunnelled. *Der.* The word tunnel comes from the Old English *toenel*, a synonym for a funnel through which a liquid (as in quickly filling a vessel, as a barrel, through a small hole) is poured; it also meant an excavation or a hole bored through, a hole or a subway under a fort or tower in besieging it. Syn. Fr. for "a tunnel," same word as ours, being borrowed from our language at the period of the introduction of railways by the English, the term being an important one in the nomenclature of railway engineering—pron. tueh-nell; also *Souterrain*—pron. sooh-terr-aihn; Ger. *Tunnel*—pron. toon-nell; also *Untergrundbau*—pron. oohn-terr-groont-bough; also *Untergrundbauweg*. Syn. Fr. for "to tunnel," *Construire un tunnel*—pron. kohn-strweer euhn tuehnell; Ger. *einen Untergrundbauweg machen*.

Turf. A term used as synonymous with a grass sod, the top layer of soil covered with grass, and the particles of which are held together by the matted roots of the grass, so as to form a solid mass capable of being cut or stripped from the ground and removed from place to place. *Der.* Our word comes unchanged from the Old English word, signifying the upper grass-covered layer of soil. In another direction the word turf is synonymous with our word peat, the consolidated remains of deposited decayed vegetable matter in marshes or bogs. The French synonym for "turf" in the first meaning given above is *Gazon*, the name for "sod"; for the last-named meaning, *Tourbe*—pron. toohrbb; Ger. *Torf*—pron. toarff.

Turpentine. A resinous oil, the product of resinous trees, as the pine, fir, etc., largely used in the arts, specially in that of house-painting. *Der.* The word is from the German *terpentin*, or from the Latin *terebinthus*, or from the Greek *terebinthinos*, from which the French synonym comes. Syn. Fr. *Térébenthine*—pron. tarce-eh-bahn-teen; Ger. *Terpentin*—pron. tare-penn-teen.

Twine Ornament. An interlaced line ornament for surface decoration, like the interlacings of cord, or so called because the lines interlace or intertwine with each other. *Der.* The word twine comes from the Old English *twinan*, from *twi*, two, as two strands wound round each other, from the cord called twine. Syn. Fr. for "twine ornament," *Entrelac*—pron. ahn-terr-lakk; Ger. *Netzwerkornamente*—pron. netts-vairrk-orr-nah-main-teh. Syn. Fr. for "to twine," *Retordre*—pron. ray-torr-derr; Ger. *Zwirnen*—pron. tsweer-nen.

Unbolt—Unbolted. Terms used in construction, as in the unscrewing of nuts which keep bolts of beams, etc., in their places, or the releasing of the bolt of a door or gate. Syn. Fr. for "to unbolt," *Ouvrir le verrou* (release the screw)—pron. ooh-vreer leh vare-ooh; also *Deverrouiller*—pron. day-vare-oohl-yay; also *Débarrer la porte* (unbar the door)—pron. day-barr-eh lah pohrt; Ger. *Aufriegeln*—pron. owff-ree-geln.

Unhook, To. As the catch of a window, the hasp of a door or gate. Syn. Fr. *Décrocher*—pron. day-kroh-shay; Ger. *Aufhaken*—pron. owff-hah-ken; also *Loshaken*—pron. lohce-hah-ken.

Upset. A synonym for overturn, as a load of bricks. Syn. Fr. for "to upset," *Verser*—pron. vairr-say; Ger. *Umwerfen*—pron. oohm-vairr-fen; also *Umstürzen*—pron. oohm-stuehr-tsen.

Upset Price. In sale of buildings, property, etc. The sum or price at which the property or buildings is put up or the

competition begun by intending purchasers at a sale by auction, and below which the property, etc., will not be sold. The term is more used in Scotland than in England. Syn. Fr. *Mise à prix*—pron. meeze ah preeh; Ger. *Angebot bei Auctionen*—pron. ahn-geh-boat by owk-tsee-oh-nen; also *das geringste Gebot*—pron. dass geh-ring-steh geh-boat; also *Preisanschlag*—pron. price-ahn-shlahg.

Utensils. A synonym for appliances, tools, or implements used in various trades, but chiefly in regard to ironmongers' goods for kitchen or domestic purposes. *Der.* The word comes from the Latin *utensilis*, a thing fit for use, and this from *utor*, *usus*, to use. Syn. Fr. *Utensile*—pron. ueh-tahn-seel; also *Outils*—pron. ooh-teel; Ger. *Geschirr*—pron. geh-shirr, or *Werkzeug*—pron. vairrk-tsoig.

Utilisation. A term very frequently used in connection with what is one of the most striking features of the development of modern practical science, the making available for useful purposes of certain products or substances which at one and for a long time were considered and classed as "waste substances." Of this development, two of the most remarkable, certainly the best known, are the utilisation of the waste substance or "bye product" of the "gas manufacture"—coal tar, from which a wide variety of colours bringing high prices, perfumes, etc., are now produced; and the utilisation of the waste products of domestic establishments, known far and wide as the "utilisation of town sewage"—that is, making something profitable which might otherwise be wasted. *Der.* The word utilisation comes from the Latin *utilitas*, and this from *utilis*, useful, which again comes from *utor*, to use. Syn. Fr., precisely our own word—pron. uuh-teel-ee-zah-sezon; Ger. *Verwerthung*—pron. ferr-vairr-toong.

Vandyke Borders, in Ornamentation. A synonym for scalloped, indicating that the edge of a body, as a window valance in upholstery or in cabinet making, in place of being plain, is cut into a succession of hollows and projections of varying outline. Syn. Fr. *Bordures à la Vandyke*—pron. bohr-duehr ah lah vahn-dyke; Ger. *Zackenränder*—pron. tsakk-enn-renn-der.

Variegated. A term applied in *Decoration* to indicate that a surface is coloured or veined, as in marble, with different colours or shades of colour. *Der.* The word is from the Latin *variatus*, from *variare*, to change, and this from *varius*. Syn. Fr. *Polychromée*—pron. poh-lee-krome-eh, or simply *Polychrome*; also *Diversicolorée* or *-colore*—pron. dee-vair-see-koh-lorr-eh; also *Bigarrée*—pron. bee-garr-eh; Ger. *Bunt*—pron. boont; also *Vielfarbig*—pron. feel-farr-bich (ch guttural, see Dissertation). Syn. Fr. for "to

variegate," *Bigarrer*—pron. bee-garr-eh; also *Diversicolorer*—pron. dee-vair-see-koll-or-eh; also *Colorer à la polychrome*; Ger. *Bunt machen*—pron. boont mach-en; also *Vielfarbig machen*. Syn. Fr. for "variegation," *Bigarrure*—pron. bee-garr-uehr; Ger. *Vielfarbigkeit*—pron. feel-farr-bich-kite.

Vessel. A synonym for a hollow utensil or dish, or a hollow body capable of containing a solid, but generally a liquid, substance or material, such as the boiler for melting asphaltic pitch for pavement work, etc., the tub for holding water used by masons, plasterers, etc. *Der.* The word is from the Latin *vasculum*, the diminutive of *vas*, a vessel; or it may be from the French *vaisseau* (vay-soh), a ship, a vessel, by which term we often designate a ship, or more directly from the French *vaisselle* (vay-sell), dishes, plates, etc.

Viaduct. A synonym for bridge, but applied chiefly, if not now exclusively, to bridges of several arches, used to take a railway across a valley. *Der.* The word is from the Latin *via*, a way, and *ducere*, to lead. Syn. Fr. *Viaduc*—pron. vee-ah-duek; Ger. *der Viaduct*—pron. derr fee-ah-dookt; also, but with a more specific application. *Eisenbahnbrücke* (a railway bridge)—pron. ize-en-bahn-bruek-keh.

Vignette. The carved work in Gothic mouldings representing vine leaves and tendrils running along the surface of a fillet, or within the curve of a cavetto or hollow moulding. *Der.* The word is from the French *vigne*, a vine, and our word is purely from the French—pron. vee-nett; also *Fleuron d'une moulure*—pron. fleuh-ron duehn mooch-luehr; Ger. *Blumenleiste*—pron. bloom-en-lice-teh.

Vinery, in Garden Architecture. The building or structure specially designed for the forced cultivation of vines, to produce grapes in climates too rigorous or too changeable to ripen them in the open air, or to produce fruit at an earlier period of the season than it would be produced if grown in the open air in fitting climates. *Der.* The word is Old English, the plant which grows the grapes from which wine—Latin for which is *vinum*—is produced. Syn. Fr. *Serre à vignes*—pron. sair ah veehn; also *Forcerie* (hothouse) *pour la vigne*—pron. forr-ser-ree poor lah veen; Ger. *Weintrauben Treibhaus*—pron. vine-trowb-en tripe-house.

Viscosity. The thick sticky or glutinous condition of certain substances used in house construction or decoration. *Der.* The word viscous comes from the Latin *viscidus*, sticky, gluey, and this from *visum*, a sticky substance known as birdlime, made from the berries of the mistletoe the parasite plant found on oaks or apple-trees. Syn. Fr. for "viscosity," *Viscosité*—pron. veess-coh-zee-tay; Ger. *Zähheit* (from *zäh* [tsay], clammy,

sticky)—pron. tsay-hite; also *Zähigkeit*—pron. tsay-ich-kite. Syn. Fr. for "viscous," *Visqueux*—pron. veeze-kueh-euh; Ger. *Klebrigkeit* (from *kleben*, to stick—hence the English "cleave")—pron. klay-brich-kite; also *Schleimig* (from *Schleim*, slime)—pron. shlime-ich.

Vitrified. A term applied to drain tubes to indicate that they are fired, so that their whole surface, internal and external alike, is covered with a hard, shining, glass-like substance. *Der.* The word vitrify comes from the Latin *vitrum*, glass, and *facere*, to make. To vitrify is practically to give or make a body with a glazed, or, as we popularly call it, a glassy, surface. Syn. Fr. for "vitrified," *Vitrifiée*—pron. veeh-tree-fee-eh; Ger. *Verglasen*—pron. ferr-glah-zen. Syn. Fr. for "to vitrify," *Vitrifier*—pron. veeh-tree-fee-eh; Ger. *Glasis machen*.

Volume. A term often employed as synonymous with quantity, mass, bulk, or size. It is more specially applied in technics to gases or aeriform fluids or to liquids than to solid substances. *Der.* The word comes from the Latin *volumen*, a material rolled or wound up, and this from *volvere*, to roll, *volutum*, rolled up. Syn. Fr. *Volume*—pron. voh-luehm; also *Masse*—pron. maahss; Ger. *Volumen*—pron. voh-loo-men.

Volute. The scroll or spiral used in the formation of the capital of the column in the Ionic order of architecture, used also in a modified form in the Corinthian and Composite orders. In the Ionic the volutes run in the same plane as that of the capital; in the Corinthian and Composite they are placed diagonally. Syn. Fr. for "volute," same word as ours, but pronounced voh-lueht; also *Hélice*—pron. hay-leece; also *Corne du bélier* (ram's horn)—pron. korn dueh bay-lee-ay; also *Hyperthyron*—pron. hee-pair-tee-rohn; Ger. *Volute*—pron. voh-loo-teh; also *Rolle*—pron. rol-leh; also *Spirale*—pron. speeh-rah-leh. Syn. Fr. for "volute of a capital of a column," *Volute du chapiteau d'une colonne*—pron. voh-lueht dueh shah-pee-toh duehn koh-loonn; Ger. *Säulenkopf-volute*—pron. zoy-len-koppf-voh-loo-teh.

Waste. A term synonymous with useless or spoiled materials, etc. For derivation of the word see Waste Pipe in text. Syn. Fr. for "to waste," in the sense of spoiling work, *Louper*—pron. loop-eh—a purely technical or workshop phrase; Ger. *Böcke machen*—pron. boek-keh mah-chen; also *Verderben*. Syn. Fr. for "waste," in the sense of being spent or worn out, *Usé* (used)—pron. ueh-zay; also *Ce qui à jouée* (that which has played its part or fulfilled its use)—pron. seuh kee ah jooh-eh; Ger. *Benutzt*—pron. beh-nootst. Syn. Fr. for "waste land for building," *Terrain superflu*

pour les bâtiments—pron. tair-aihn sueh-pair-flueh poor lay bah-tee-mahn; Ger. *unbenutzter Bodengrund*—pron. oohn-beh-noots-terr boh-den-grooht. Syn. Fr. for "waste land," *Terrain friche* or *garigue*—pron. tare-ahn freesh, garr-eeg; Ger. *bracher Grund*—pron. brah-cher; also *Steppeland*—pron. step-eh-lant. Syn. Fr. for "waste soil or earth," *Terre* or *Sol de lavure*—pron. tairr or soll deh lah-vuehr; Ger. *Gekratzgrund* or *-erde*—pron. gay-krahtts-groont, airr-deh. Syn. Fr. for "waste wood," fitted only for firewood, *Méfentes*—pron. may-fahnt; also *Perte de bois*—pron. pairt deuh bwah; Ger. *Holzabfall*—pron. holts-ahp-fahl.

Way. A synonym for passage, path, or road, as a passenger way. *Der.* The word is from the Old English *weg*, a road, track, or passage. Syn. Fr. *Voie*—pron. vwah; Ger. *Weg*—pron. vague. Syn. Fr. for "to give way," as to let a rope loose, or to allow a beam to drop, *Laisser libre*—pron. layss-ay lee-berr; Ger. *Losmachen*—pron. lohss-mah-chen. Syn. Fr. for "to give way," in the sense of yielding, as a beam giving to or yielding under pressure, *S'affaisser* (to make itself weak or feeble, or to press down or sink under)—pron. sah-fay-zay; Ger. *Sich geben*—literally "itself to give"—pron. zich gay-benn.

Weak. *Der.* The word is from the Old English *wac*, and this from *wican*, to yield, to give way under, to be depressed. The term means generally a want of strength, of completeness, an inability to perform the work or duty expected of a body, as a beam or column, or a stone lintel or pillar. Syn. Fr. *Faible*—pron. fay-bell; also *Débile*—pron. day-beel; Ger. *Schwach*—pron. shvahch. Syn. Fr. for "to weaken or make weak," *Affaiblir*—pron. ah-fay-bleer; also *Attenuer*—literally "to make thinner"—pron. ah-tain-ueh-eh; Ger. *Schwächen*—pron. shvech-en. Syn. Fr. for "to become weaker," as a beam or lintel under continued over-pressure, *S'attenuer* or *S'affaiblir*; Ger. *Schwach werden*—pron. shvach vairr-den.

Wear. *Der.* The word is from the Old English *weiran*, to carry, to wear, to be consumed by use, to suffer or endure. Syn. Fr. *User*—pron. ueh-zay; Ger. *Nutzung*—pron. noot-soong. Syn. Fr. for "to wear out," as a lock, *User*—pron. ueh-zay; also *Consumer*—pron. kohn-sueh-may; Ger. *Abtragen*—pron. ahp-trah-gen. Syn. Fr. for "wear," in the sense of gradual deterioration or weakening through continued use, *Usure par la détérioration*—pron. ueh-zuehr pahr lah day-tare-ee-oh-rah-secon, or simply *Usure*; Ger. *Abnutzung*—pron. ahp-noot-soong. Syn. Fr. for "wear and tear of roads or paths," *Usure des routes*—pron. day root; Ger. *Strassewehr*—pron. strah-say-vair.

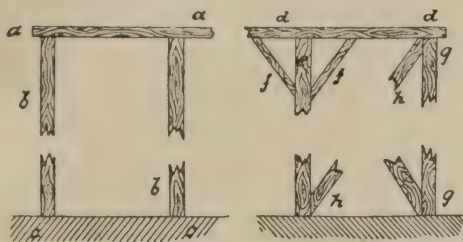


Fig. 1

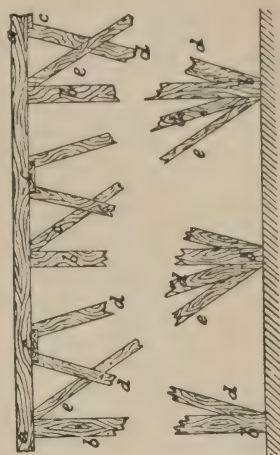
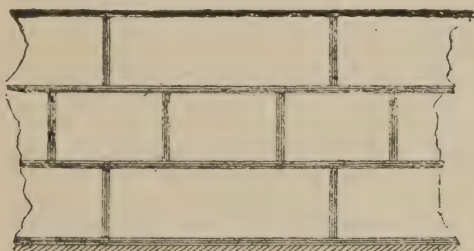


Fig. 2



A

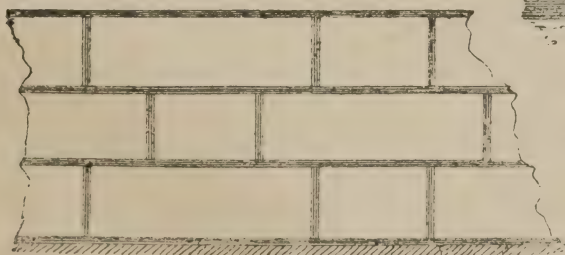


Fig. 3

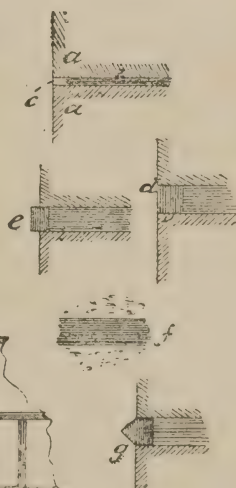


Fig. 4

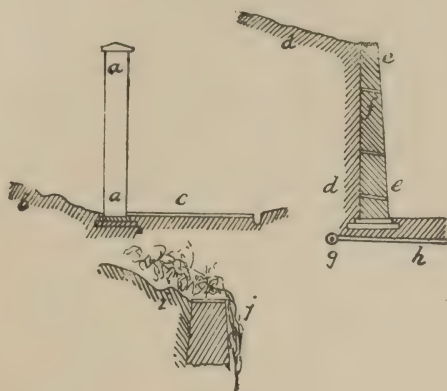


Fig. 1

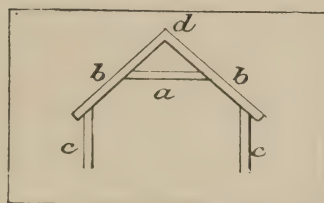


Fig. 2

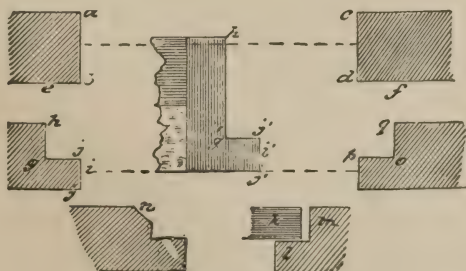


Fig. 3

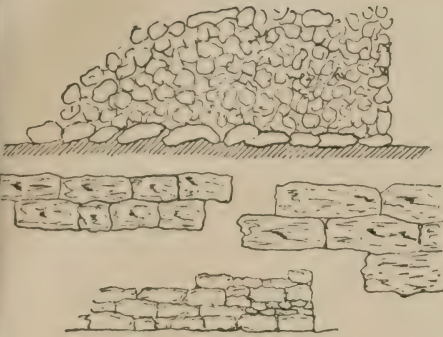


Fig. 1

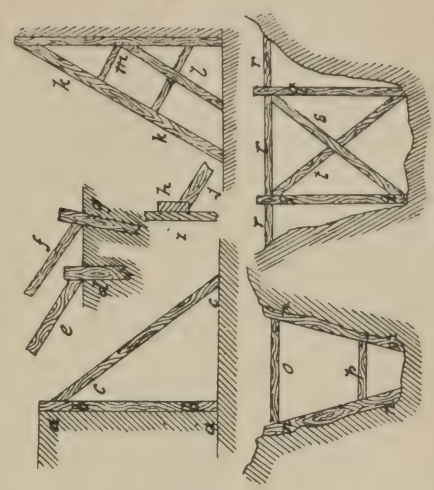


Fig. 2

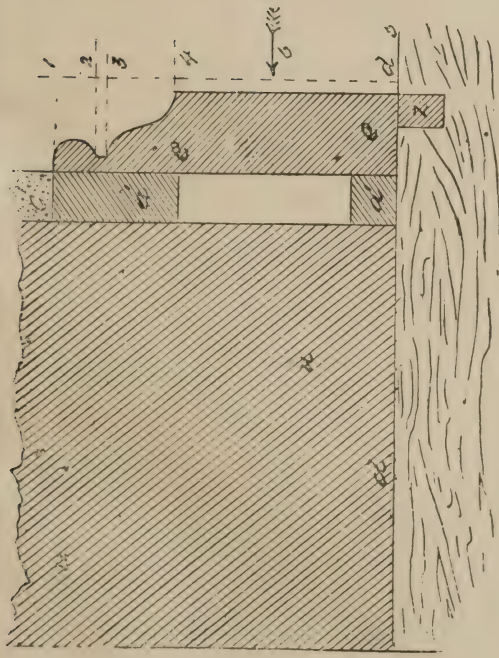


Fig. 3

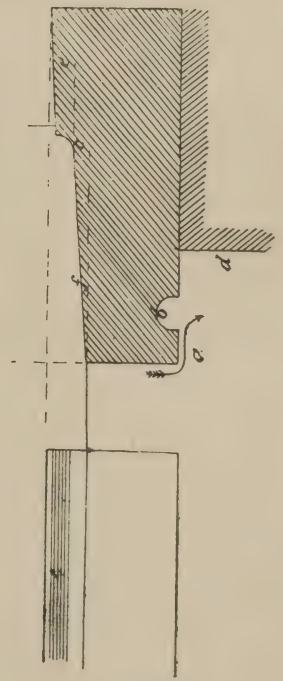


Fig. 4



Fig. 1

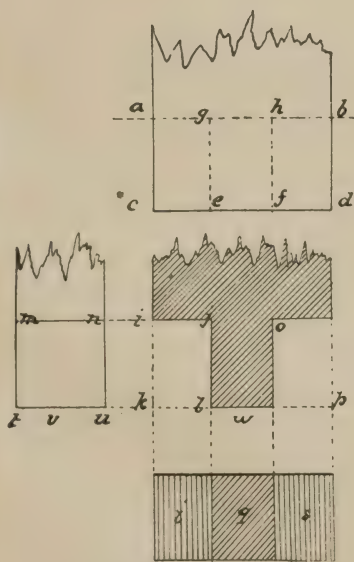


Fig 2

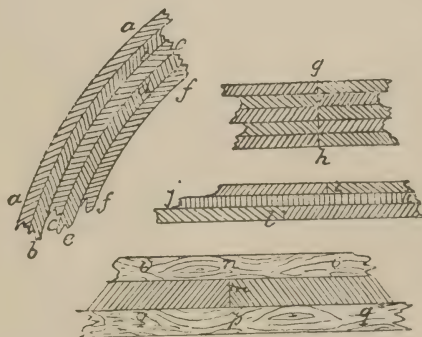


Fig. 3

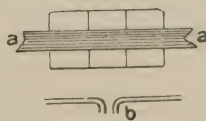


Fig. 4

Wetting. A synonym for moistening or damping, as lime or plaster, by sprinkling water over them. *Der.* The word wet comes from the Old English *waeten*, to moisten with a liquid. Syn. Fr. for "wet," *Humide*—pron. ueh-meed; Ger. *Nass*. Syn. Fr. for "wetting," *Arrosement*—pron. ah-rose-mahn; Ger. *Nässen*, or *Durchnässen* (through moistening)—pron. doorch-ness-en.

Whiten. Generally used as a synonym for "to whitewash," as the walls of a building. *Der.* The word white comes from the Old English *hwit*, without colour, pure. Syn. Fr. for "to whiten," *Blanchir*—pron. blahn-sheerr; Ger. *Weissmachen*—pron. vice-mah-schen.

Wicker Work. *Der.* The word wicker comes from the Old English or Icelandic *wider*, made of willow twigs, the synonym for which is "osier." Wicker-work is used for the protection and fencing of stream and river banks. It takes the form of flat basket-like work, of bundles called fascines—though the twigs of trees other than the willow are used for these—and of baskets to hold soil or sand. Syn. Fr. for "wicker," *Osier*—pron. oh-zee-eh; Ger. *Weide*—pron. vide-eh. Syn. Fr. for "wicker

work," *Ouvrage en osier*—pron. ooh-vrahj; Ger. *Weidenwerk*—pron. vide-en-vairrk.

Wrong. A term meaning the converse or opposite of right or correct, as when work is badly done it is said to be wrong. *Der.* The word comes from the Old English, which, with the difference of a single letter, is identical with our wrong. Syn. Fr. for the "wrong side" of a body, as a plank board or beam, etc., *Envers*—pron. ahn-vairr; also *Contre sens*—pron. kohn-terr sahn; Ger. *unrecht Seite*—pron. oohn-recht zy-teh; also *verkehrte Seite*—pron. ferr-kairr-teh zy-teh.

Zone. *Der.* The word is from the Latin *zona*, and this from the Greek *zone*, from *zonnunai*, to gird or girdle. The term is applied in construction to indicate the inclosed space of a body, as that which affords the bearing or resting-place of another body—superposed; hence called the zone of contact. Syn. Fr. for "zone," *Zone*—pron. zohn; Ger. *Gürtel*—pron. guerr-tel; also *Zone*—pron. tsoh-neh. Syn. Fr. for "zone of bearing contact" or "simple zone of contact," *Zone de contact*—pron. zohn deh kohn-tahkt; Ger. *Behrührungszone*—pron. beh-ruehr-oohngs-tsoh-neh.

DESCRIPTION OF ILLUSTRATIVE PLATES.

IN many of the terms as given in the text, however carefully worded, the points described cannot be fully and clearly understood, and this simply because the importance of those points lies wholly in the form, shape, or configuration of certain parts, and in their relation or position to one another. It is obvious that descriptive words can only in a few instances convey a correct notion of such form, and even where they are admissible they require to be so ample or full, or the terms so often repeated, that much space is lost in giving what at the best is but little information. But in the great majority of instances no amount of purely descriptive matter could convey accurately practical notions of form or shape, or of the relation of one part of an object to another, or to the parts of another object or body. Hence the utility of the present section, which, in giving illustrations of certain of the terms of the text, will make clear important points connected with those terms which, without the illustrations and further explanations or descriptions, could not be clear enough for useful purposes. To have carried out the plan upon which this present section is based to its fullest extent would have increased the contents of the volume far beyond convenient limits. But while reducing the number of illustrations so as to include them within reasonable bounds, it is only right to state that the majority of the terms of importance are embraced by them. Taking, then, this section as a whole, it is put forward with some degree of confidence as that which will add largely to the utility of the Technical Dictionary of Terms used in Architecture and the Building Arts, as affording information which could not otherwise be readily obtained, and which in itself possesses a high practical value.

Abutment. See text, p. 1; also term "Arch" in the present section.

Annulate. See text, p. 3, and the paper on "Mouldings" in this present section. (See fig. 3, Plate XIV.)

Arch. See text, p. 5, for general description of the peculiar features of an arch; and p. 215 for the names and special characteristics of the different classes or forms of arches used in practical construction. In a true arch, the stones or bricks employed in the construction are so disposed that the walls or piers or imposts at the two sides of the space to be spanned are joined, so to express it, by a structure the under or lower side of which—termed technically the "intrados"—forms a curved line. A flat arch is therefore a misnomer—although, not greatly to the credit of modern brick construction, it is met with, as in forms in fig. 1, Plate I. The strongest, as it may be termed the truest, arch is that used universally by the Romans, and known as the "semicircular," as illustrated in fig. 5, Plate I. The next strongest is the "segmental," illustrated in fig. 7, Plate I. Fig. 3, Plate I., is the "elliptical," strictly designated the "semi-

elliptical"; and the "Gothic" or "pointed arch," in fig. 4, Plate I. In arch constructions in brickwork and masonry there is this distinction between them. In masonry the stones are cut or shaped to meet the precise conditions of the peculiar form or design of the arch decided on, the stones being all wedge-shaped, more or less pronounced in the slope, bevel or angle, one of the stones taking the form of a double wedge, as at *a* in fig. 5, Plate I., this being placed at the highest parts of the curve of the arch, and is called the "key-stone." The stones generally are designated as "voussoirs" (see p. 200 of text). In arch construction in brickwork, as all the bricks are of equal dimensions, there is no one individual brick which possesses a special name, or assumes a special place or position in the general arrangement, they being all used indiscriminately; the only work necessary to be done is rubbing—in some instances cutting or chopping—off small parts, so that they will fit in with one another with greater or less accuracy in the jointing and bond. The names of brickwork arches are therefore derived from or given to certain arrangements of the bricks affording

a peculiar section; and from the way in which the individual bricks are set in relation to each other, and to the general outline or section. The arch—falsely, as we have seen, so called—illustrated in fig. 1, Plate I., is called a "straight," sometimes a "flat arch." A "camber arch" is that in which the lower line, as *a c*, fig. 1, Plate I., is slightly curved, so that the arch has a disposition to camber (for meaning of which term see p. 19 in text). The bevel or oblique line *a b* in this figure, which gives the wedge-like shape to the arch, is called the "skew-back." What is called a "relieving arch" is illustrated in fig. 6, Plate I. An "invert" or an "inverted arch," as illustrated in fig. 1, Plate II., is used in foundation or excavation work, as in culverts or drains for conveyance of liquids, the position of the arch being simply reversed or inverted. (See the term "Centres" in the present section.)

Architrave, in Mouldings. See p. 6 in text, and for illustration *a a b* in section and *d d* in elevation in fig. 2, Plate XV.; also *i* in fig. 4, Plate XIX.

Ashlar Walling, in Stone Work. See "Ashlar" in text, and diagrams in fig. 3, Plate IX.; also diagrams A and B in fig. 2, Plate XXV.

Backflap. See p. 9 of text, also illustration under term "Windows" in this present section, as *b*, fig. 4, and *g* in fig. 5, Plate XIX.

Baluster. See p. 9 of text, also fig. 3, Plate XVII., in articles "Stairs" and "Staircases" and "Handrail" in this present section.

Bars, of a Window. See p. 10 of text, and for illustration see also article "Window" in this present section, and for illustration diagrams *j* and *k*, fig. 1, Plate XX., under that term.

Barrel Vault. See p. 10 of text, and also article "Vault" in this present section for illustration.

Bird's Mouth, in Carpentry. See term in text, p. 14, also annexed illustration, fig. 1, Plate XXI.

Bolt-Screw, in General Construction. See term in text, pp. 14, 15, and fig. 1, Plate XXIII.

Bond, in Brickwork. See pp. 15 and 222 in text. The following will illustrate most of the points named in the text. In fig. 2, Plate II., *a* is a "stretcher" brick, *b* a "header," both lying on the flat side, technically termed "brick on bed." If the brick is on one of its narrow sides, it is termed "brick on edge"; if on one of its ends, "brick on end." Fig. 2, Plate II., illustrates a "first course" of a nine-inch-thick wall in "Flemish bond" (see text). Fig. 1, Plate III., illustrates the first and second courses of "Old English bond," in which

each course is made of "stretchers," *bbb*, and of "headers," as *aa*, alternately. In "Flemish bond," fig. 2, Plate II., the "headers," as *bb*, alternate in each course. "Horizontal bond" is obtained by disposing the bricks in each course as shown in the figures above named. The bricks so disposed in aiming at horizontal bonds would place them so that joints would stand vertically over one another, so that, if any unsettlement of the foundation took place, the bricks would separate at the vertical joints, forming wedge-shaped cracks, as shown at the right hand of lower diagram in fig. 1, Plate II., the line of joint running vertically from bottom to top of wall. It is to prevent this that "vertical bond" is necessary, and to secure it the bricks in their several horizontal courses are disposed in relation to each other, according to the class of "bond" adopted, and so that the solid part of one brick, as the "stretcher," *a* or *b*, fig. 4, Plate II., shall lie against or rest upon the joint or joints formed by other bricks in other courses, as the joints of the "header" bricks *g c h* in same figure. This is termed "breaking joint." But this vertical bond creates this difficulty: namely, that no even number of bricks can be used in any two contiguous courses; so that at the ends of certain courses voids or unfilled spaces are left, as *m* and *n*. Those spaces are filled in by half-bricks, called "closures" or "closers." To make the terminations of the courses more pleasing to the eye, the "closers" are not placed at the extreme end of the course, as at *m* or *n*, fig. 4, Plate II.; but form the last piece but one—a "header" brick or a "stretcher" brick finishing the course.

Bond, in Stone or Mason Work. Is the same in principle as in brickwork, the details only being different, and this arising from the varying shapes or forms and sizes of the blocks or pieces of stone used in building walls. The pieces or blocks are generally termed "stretchers" and "headers," according as they lie parallel to or at right angles with the line of the wall; but frequently a header is termed a "short," as at *dd*, fig. 2, Plate III., or, if it goes from front face to back face of wall, a "through." A stretcher is also often called a "long," as *f* or *g*, same figure, which illustrates generally the way bond is secured in stonework, as also does fig. 5, Plate II., in which the "headers" or "shorts" or "throughs" are shown by cross-hatched parts, the "stretchers" or "longs" by shaded parts.

Bond Timber, in Bricklaying and Masonry. Fig. 2, Plate I., at *aa*, illustrates one way of using bond timber. (See also "Hoop Iron Bond" in this section.)

Bolster Pieces, in Carpentry. See "Centres" in this section for illustration of the term. (See *b c, f g h* in fig. 1 Plate III.)

Braces or Struts. See p. 171 in text. These synonymous terms indicate those members of framed work, as roofs, partitions, and the like, the office of which is to support or prop up other members placed under certain strains or pressures. Struts and braces are never placed horizontally, but are always oblique, or at an angle to the horizon. The angle of obliquity varies with the conditions of design of the framework or framing of which they form members. The greater the angle they form with the horizontal member, the stronger the braces or struts; the nearer they approach the horizontal, the weaker. In fig. 6, Plate XV., the piece or member *d* is a "strut" or "brace" resisting the pressure put upon the rafter *b b*. (See also *b b* in fig. 3, Plate XVI., and *c c*, *k k*, *s* and *t*, fig. 2, Plate XXVII.)

Breaking Joint, in Construction. See term p. 16 in text, also for illustration see "Bond" in present section, and at *g c h*, *a d*, fig. 4, Plate II.

Brick, Hollow, in Bricklaying. See p. 17 of text, and in annexed fig. 3, Plate XXIII. The four diagrams at bottom—various forms of bricks—are shown in the figure. *a b c d* is plan of an ordinary brick, *e f g h*, side or edge, and *i j k l* an end view. Bricks are made with hollow or depressed parts on their upper and lower faces, as at *m m*, *p p*, *u u*, and this to give better bond.

Built Beam, in Carpentry. See p. 18 in text, and fig. 3, Plate XXVIII.

Canted Arch. See p. 19 in text, and fig. 2, Plate XXI.

Canted Moulding. See p. 19 of text; in fig. 5, Plate VII., *a a* is the canted moulding.

Casement Window. See p. 21 of text, and for illustration see article "Windows" in this section. (See diagram *o* in fig. 1, Plate XX.)

Cavity Walls. See p. 21 in text. This, in brickwork, is attained by so disposing the bricks that, while good and perfect "bond" (see "Bond" in this present section) is secured, there shall be a vacant space in the interior of the walls. Various bonds have been introduced with this object in view; the earliest, simplest, and perhaps in many respects the best for ordinary work, is that known as Dearn's. This is illustrated in fig. 6, Plate XIX. This gives a "nine-inch" hollow wall, the first course of which is a row of "stretchers," the next a row of "headers" placed on edge. The sketch on the left is a vertical section of the wall. The hollow in this wall is not throughout its height, but only at each alternate course. Other methods give hollows or cavities at short intervals on each course, but extending vertically from top to bottom of wall.

Centres or Centring. See p. 22 in text. The timber or wooden construction used in building of arches (see "Arch" in this section). Generally a centre may be described as a framework designed to sustain a given weight or pressure of materials during the process of building, or, to use the technical term, "turning" the arch, these materials resting upon a surface, or what may be termed the floor of the centre, formed with boards, these being carried by the framing which constitutes the centre proper. In place of resting upon the boarding or floor, narrow strips or battens of wood, termed "bolsters" or "bolster-pieces," are used, the stone voussoirs or arch-blocks or bricks resting upon these cross-pieces. The upper part of the framing and the flooring or bolsters when in place (*in situ*) take the form of a curved line, the curve or radius of which is the same as that of the arch to be turned or constructed. The framework or centre proper is supported by vertical props or studs resting on the ground, and placed against the wall or the abutments at each side of the opening or space across which the arch is to be "thrown." Wedges are placed between the sill of framing and the sill supported by the upright studs, and by driving in or releasing those wedges the framing or centre on which the arch is built can be raised or lowered. Fig. 1, Plate IV., illustrate the simplest form of centres. More elaborate framings are used when no support is had from the ground; but the framing is independent thereof, and quite self-supporting, all the strain being thrown on to the abutments, thus leaving a free span below for traffic, as in crossing a stream of water.

Chamfer. See text, p. 23, and illustration in fig. 3, Plate III., in which *a b* is the corner cut off, as in section at *a* and *b* in elevation. When the chamfer does not extend to the extreme end of piece, but stops short of the end, as at *e e*, it is called a "stop chamfer." (See "Stop," p. 165 in text.)

Chimney Flue. See p. 52, and also p. 24 in text, fig. 4, Plate IV. Diagram A is the plan of first course of a chimney-flue in brickwork, in which there is a flue *a* of the size or dimensions 14 in. × 9 in., used for ordinary fireplaces; *b* a kitchen flue 14 in. square. The division between the two is technically called a "with." Diagram B in same figure illustrates the second course. A repetition of these courses alternately will give a flue of any desired height. The system of bonding here illustrated is obviously applicable to the construction of a pier or column of brickwork hollow.

Chill or Sill. See p. 24 in text, and for illustration of window sill see article "Window" in this present section, and in fig. 2,

Plate XXIII., at *h h*. In this *h h* is the stone "sill," *dd* the wood sill—"weathered" and "throated" (see terms)—carried by the window-frame, in this case that of a case-ment window (see "Window" in this section). *j* and *g* are the sill and moulding inside the room.

Clamp, in Joinery. See p. 25 of text, and article "Joints" in the present section. (See fig. 3, Plate VIII.)

Clap-boarding. See p. 25 of text, and illustration, fig. 4, Plate XXI. *aa* is the post to which the boards or planks *bb* are secured.

Closers or Closures. See text, p. 27, and also article "Bond" in present section, and fig. 4, Plate II., for illustration. *m* and *n* are the closers.

Collar Beam. See p. 28 of text, and in fig. 4, Plate XXVI., in which *a* is the "collar beam" connecting the rafters *bb*, and in small span roofs used as a substitute for the tie-beam, which see.

Countersunk. See p. 31 of text, and fig. 5, Plate 21, in which *aa* are sloping sides, going all round at top of hole *b* made in piece *c c* on which the sloping head of screw *d rests*. In same figure a countersunk rivet for metal-work is shown, the head being flush with the general surface of the plate as at *e*.

Curb Roof. See p. 33 of text, and article "Roof" in the present section for illustration. (See No. 7, fig. 2, Plate XVI.)

Dado. See p. 34 of text, and fig. 6, Plate XXI., in which *a* is the dado, *b* the upper moulding or cornice, *c* the base: this part alone forms what is called the "skirting board" (see p. 147 of text), *dd* the line of flooring, *e* the wall or partition.

Deafening. See p. 35 in text, and article "Floors" in the present section; and in fig. 4, Plate XXIII., in which *aa* are the flooring joists, *bb* the flooring boards, *cc* small-sectioned strips or wood finings nailed to joists, *aa*, at a depth from top edge sufficient to give space for the deafening material (well-haired mortar) to lie, this being supported by the strips or laths *ee*, which form a floor on which the deafening lies.

Discharging Arch. See p. 37 of text, and article "Arch" in the present section. (See fig. 6, Plate I., in which *a* is the discharging arch.)

Doors. See p. 38 of text. The simplest form of a door is the "ledged"; the next in complication of parts and finish is the "ledged and braced" door, as illustrated in fig. 2, Plate VI. Where the "braces," as *aa*, otherwise termed "struts," are not given, the door is that named first above—the "ledged" door. The next highest door in design is that known as the "framed, braced

and ledged," the vertical boards as *cc*, fig. 1, Plate VI.—the braces *aa* and the ledges, as *bb*, being all united or bound round together or inclosed by a framing, as *aa*, *bd*. In point of fact, the top, bottom, and middle "ledges," as *bb* in fig. 2, Plate VI., are replaced by the "top" and "bottom rails," *b* and *d*, fig. 1, Plate VI., and the "middle rail," *c*, all of which are flush with the like parts, termed styles, *aab*, in place of projecting, as is the case in a true "ledge," as *b* in fig. 2, Plate VI. The highest class of door is the "panelled door," illustrated in fig. 1, Plate VII. In this the frame is so made as to have four or six, sometimes eight, open spaces in the centre of the framing, which are filled up by panels (which see). The figure shows a "four-panelled door," the different members or parts of which bear the following names. *aa*, *bb*, the "styles." The style *aa* is the "hanging style," as that is the style to which the hinges are attached, which join the door to the side post of the door casing or framing in the wall which incloses the door on three sides. The style *bb* is called the "lock style," as that which carries the lock, the bolt of which is shot into the recess made in the side of the "door casing" to receive it. The "rails" joining horizontally the vertical styles *aa*, *bb*, are three in number in a four-panelled door, as *c* the "bottom rail," *d* the "top rail," and *e* the "middle" or "lock rail," which carries in conjunction with it the lock style *bb*. The central vertical members, *ff*, are called "muntins," an evident corruption of "mountings." For the distinctive terms of "panels," and the method of fitting them up, see in the present section the term "Panels."

Dormer Window. See p. 39 of text, and for illustration see article "Windows" in the present section. In the drawing there referred to, diagrams H and I illustrate a window of this class. (See fig. 1, Plate XX.)

Dovetail Joints. See p. 39 in text, and article "Joints" in the present section; see also fig. 3, Plate XXIV.

Dripstone. See p. 41 of text, and illustration fig. 4, Plate III.

Eaves. See p. 42 of text, and articles "Roofs" and "Gutter" in the present section. (See fig. 2, Plate XX.)

Enclosing Wall. See p. 43 of text, and article "Walls" in the present section. (See fig. 2, Plate XIX.)

Extrados. See article "Arch" in the present section. The outer convex line of the curves of the arch, as *adc* in fig. 1, Plate XXII.

Feather-edged Boards. See p. 47 of text, and for illustration see *b*, fig. 4, Plate

XXI., in the present section under the term "Clap-boarding."

Final. See p. 48 of text, and fig. 2, Plate XXIV.

Flushing. See p. 50 of text, and fig. 5, Plate XXII., in which *a* is the joint between line *ab* of sloping roof and vertical side, *cd*, of, say, a chimney stalk *ee*, the sheet-lead laid flat and round the joint as close as possible, to prevent rain from passing through to the underside of roof *ab*. As the joint with the flat part *ae* only would open and admit rain, it is the object of "flushing" to cover the joint *a*. This is done as explained in text, and as shown in illustration at *fgh*.

Flitched Beam. See p. 51 of text, and fig. 3, Plate VII., in which *efgh*, are the two halves of the timber beam—*cd* the plate or "flitch" of wrought iron—the three being bolted together as shown at elevation at *a*.

Floors. See term in text, p. 51, for general classification and description. The following are illustrations of the various kinds and members of them. Fig. 2, Plate VII., is an illustration of diagram A in plan and diagram B in cross-section of a "single floor," in which *aa* is part of one of the walls; *bb* the flooring joists resting on and built into the walls (in better-class work on a wall-plate carried by a brick offset); *cc* the flooring boards running at right angles to the joists *bb*; in the section *ee* is the ground line. Fig. 1, Plate VIII., is a drawing of the second class of floors, the "double floor," in which diagram A is plan and diagram B is a cross-section. The additional member given to this is the "bridging joist" or "binder" or "binding beam" *bb*. These binders are carried or supported by the wall *aa*; in better work they are carried by small brick or stone piers. The joists or "flooring joists" *cc*, which run at right angles to the "binders" or "bridging joists" *bb*, carry the "flooring boards" *dd* at right angles to the joists, and thus parallel to the bridging joists. In fig. 2, Plate IX., we give a drawing of the third class of floors—the "double-framed floor"—in which the new member known as a "girder" is introduced. Diagram A is plan, B cross-section, in which *aa* is part of the wall, *bb* the girder. The ends of this rest in a recess made in the wall of larger opening or area than the end of beam, so as to admit of a free current of air round extremity of girder. The girder *bb* has jointed into its sides the ends of the binders or bridging joists *cc*. On these are laid the flooring joists *dd*, to which the flooring boards *ee* are nailed. If the floor is that of a second story flat or floor, the lower part carries the "ceiling" of the room below the floor. The lath and plaster which con-

stitute the ceiling are carried by what are called "ceiling joists," to the under side or edge of which the laths are nailed. In fig. 1, Plate V., *gg* show the "ceiling joists" jointed or let into the under side of binding or bridging joists *cc*. This drawing gives two views—diagram B being a view of *a*, as *a* is looked at in the direction of arrow *b* in A.

Flue Chimney. See p. 52 of text, and for two courses of brick flues see fig. 4, Plate IV. (See "Chimney Flue" in this section.)

Flutes or Flutings. See p. 52 of text, and fig. 6, Plate XVIII. They are of various sections—concave as at *a*, convex as at *b*, or as at *c* and *d*.

Footings. See p. 52 of text, and fig. 8, Plate I.

Fox-Tail. See p. 53 of text, and for illustration see term "Joints" in present section, fig. 5, Plate IX.

Fret. See p. 54 of text, and fig. 4, Plate XXIV.

Gantry. See p. 56 of text, and fig. 1, Plate XXV.

Gauged Arch. See p. 58 of text, and also for illustration the term "Arch" in the present section, fig. 1, Plate I.

Girder. See p. 58 of text, and for illustration fig. 4, Plate VII., in which *b* represents the girder or large beam in a "double-framed floor" (see "Floor" in this present section); *aa* the bearing or "binding joists," tenoned in as shown into the face of the girder; the dotted lines *g* show the binding joists on other side of girder; *e* the "flooring joists" which carry the flooring boards not shown in the figure. The "ceiling joists," which carry the lath and plaster of ceiling below the floor, are spaced immediately below the flooring joists *e*, as shown in the illustration.

Groins. See p. 62 of text. A "groin," defined technically, is a line formed at the junction of arched buildings, such as a vault—the arches crossing at right angles. All the arches are of the same diameter, and consequently of the same height; and all are at the same level at their highest points. The curve formed by the internal surface or intrados constitutes the groin. Fig. 2, Plate IX., will, with the following description, give a fairly clear notion to the student reader of what a groin curve is and how it is produced. Let *abcd* be four parts of equal length of four arches of equal diameter, as shown at the elevations *efgh*, and each standing at its highest point above the level of the ground. If these arched structures were so placed that they all touched each other, as seen in the figure, it is obvious that they could not be ad-

vanced nearer each other; but standing thus would form a square $ijklm$, central to all of them. But suppose this space was to be covered, if a flat roof or plate were placed so as to lie equally resting upon each arch, there would be of necessity, looking at any of the arched openings as in the direction of arrow 1, vacant spaces left at each side, inasmuch as the plate or roof would only touch or rest upon the highest points of each arch; and each arch would, so to say, fall away from the flat roof. To make a perfectly protective and sound roof or ceiling to the internal space $ijklm$, the only way would be to cut away, so to say, parts of the arches by lines starting from a central point in the inner sides of the arches, and joining the extremities of the arch outside line. All equally cut away, they could then approach each other on being moved inwards till all the cut-away sides would meet in a central point m (fig. 2, Plate IX.), the dividing lines between each being km , lm , im , jm . But in place of these being straight lines, as in the figure, they are curved lines, inasmuch as the external surfaces of the sections, as abc , cdb , are curved, being parts of semicircular arches, as shown at f and g , fig. 2, Plate IX. When the arches are all of equal diameter, as in this figure, the meeting points make a square, as at ij , kl .

Groove and Tongue. See p. 43 of text, and the article "Joints" for illustration in present section. (See fig. 2, Plate IV.)

Ground Sill or Chl. See p. 63 of text, and article "Partitions" in the present section for illustration. (See aa in fig. 1, Plate XVI.)

Gutter. See p. 63 of text, and fig. 3, Plate XX., for an ordinary gutter, forming part of the cornice of a house. A "valley" gutter is shown in the illustration, fig. 4, Plate XXII.

Half-lap Joint. See p. 64 of text, and for illustration the term "Joints" in the present section. (See fig. 4, Plate IX.)

Halving Joint. See preceding term.

Hammer Beam. See p. 66 in text, and fig. 3, Plate XX., in which b is the hammer beam, c the bracket.

Handrail. See term in text, p. 66, for characteristics of this member of a staircase or stair. The handrail of a stair is generally made of mahogany, and is highly polished on its surface so that the hand can slide easily over it. It is of width and depth such as easily to be grasped by the hand when its support is required, and is of various sections, all of which are more or less rounded on the upper surface. The rail is carried and supported by the balusters, which are jointed into the surface of the

"treads" of the steps, and which, standing vertically and separated some nine inches or so from each other, form what may be called the protecting balustrade or railing on the open or free side of the staircase. The handrail starts from a post or rail of larger section than the ordinary balusters, called the "newel post," and is secured to the first or lower step, which at that part is often finished in a winding scroll, the lower step taking, when so treated, the name of a "curtail step." Fig. 3, Plate VI., illustrates the connection of newel post with the curtail step and the handrail which crowns it at top.

Haunch of an Arch. See p. 68 in text, and for illustration see abc , fig. 1, Plate XXII.; also "Arch" and "Spandril" in present section.

Header Course. See p. 68 of text, and article "Bond" for illustration in the present section. In fig. 5, Plate III., $fghi$ shows a "header," bca a "stretcher" brick. (See also fig. 2 in same Plate.)

Hip Roof. See p. 71 of text, also article "Roofs" in the present section. (See No. 2, fig. 2, Plate XVI.)

Holdfast. See p. 72 of text, and fig. 7, Plate XXI.

Hoop-iron, for Bonding Brickwork. See p. 74 of text; also "Bond" in the present section, and fig. 4, Plate XXVIII. If holes are punched in the hoop-iron, the rough parts left, as at b , give it a better hold of the mortar.

Horse-shoe Arch. See p. 74 in text, and fig. 7, Plate XVII.

Impost. See p. 76 of text, and $g h$, fig. 1, Plate XXII., in this section.

Indent. See p. 77 of text, and aa , fig. 5, Plate X.

Intrados. See p. 78 of text, and $f g$, fig. 1, Plate XXII.

Invert Arch. See p. 79 of text, and "Arch" in the present section. (See fig. 4, Plate I.)

Joggle. See p. 80 of text, and next term ("Joints") in the present section for illustration. (See fig. 4, Plate XII., at $c c$, and fig. 3, same Plate, at e .)

Joints. See text, p. 81. The following figures illustrate briefly the features of the leading forms of joints used in the building arts. Fig. 5, Plate IV., illustrates various modes of forming "true" joints at the edges of pieces of wood, so as to form a broad surface out of two or more narrow pieces. Fig. 3, Plate VIII., illustrates a method of further securing and keeping together a series of boards joined edge to edge by one or other of the methods illustrated in fig. 5, Plate IV. The board aa crossing the whole

breadth of the joined pieces, in place of being simply nailed outside of them, is secured by the dovetailed joint, as shown in the figure. Fig. 2, Plate V., shows how a series of flat boards, as *a a*, joined edge to edge, are kept together by a species of outside frame, formed of side-pieces as *b*, and end-pieces as *c c*, grooved and tongued as shown in section at *f* and *g*, and mitred at the corners, as at *e*. Fig. 4, Plate IX., is a well-known method, known as the "half-lap" joint, of joining pieces in the direction of their length, other joints of this kind being shown in figs. 4 and 5, Plate VIII., and in fig. 5, Plate X. Joints for pieces at right angles to each other are shown in fig. 4, Plate VII., fig. 5, Plate IX., fig. 1, Plate XI., and fig. 3, Plate X. The method illustrated in fig. 2, Plate X., is adapted to "round" timber. Figs. 1 and 2, Plate X., and fig. 2, Plate XI., illustrate methods of joining timbers at angles other than right angles. The well-known "mortice and tenon" joint is illustrated in fig. 2, Plate XXVIII. All the joints above named are used in carpentry and joinery. The leading joints used in masonry are illustrated in the various diagrams given in Plate XII., and in fig. 1, Plate XIII.—which last illustrates the method introduced by the celebrated engineer John Smeaton in the erection of the Eddystone Lighthouse, recently replaced by a new structure in which the dovetailing system here shown is carried out to the fullest extent.

Keystone. See p. 83 of text, and *e*, fig. 1, Plate XXII.

King-post Truss. See p. 83 of text, and for illustrations see fig. 1, Plate XVI., and article in the present section on "Roofs."

Lap Joint. See p. 85 of text, and "Half-lap Joint," and fig. 4, Plate IX.

Lattice Girder. See p. 85 of text, and illustration in fig. 2, Plate XXII.

Lewis. See p. 86 of text, and fig. 3, Plate IV., in which *a a* is the heavy block of stone to be lifted by this contrivance; *b c* the two wedge-shaped pieces, their other or flat side being of the same form as the dovetail at *d'*; *d* the central piece, flat-faced on both sides, with lifting ring *e e'* passed in between pieces *b* and *c*, and secured by the pin *f f'*, with its split-key *g j*. The lower end of split-key is shown at *h* with its end closed, so that it can be passed down the slot *i* in the bolt, and when it is passed down to the full depth the ends are opened up or "split" (hence the name), as at *j*.

Light. See p. 87 in text, and for illustration see article "Window" in this section. In fig. 1, Plate XXIV., there referred to,

A is a "one-light," *c* and *r* "two-light," and *D*, *E*, and *G* "three-light" windows.

Lining. See p. 88 of text, and for illustration see "Windows" in present section.

Lintel. See p. 88 of text, and *b b* in fig. 6, Plate I. (See also article "Beams" in present section.)

Lock Rail. See p. 89 of text, and *f* fig. 4, Plate XX.

Lock Style. See above, or *f* in fig. 4, Plate XX.

Longs and Shorts. See p. 90 in text, and article in present section under term "Bond," *f* and *g*, fig. 2, Plate II. See also "Quoins," p. 114 of text.

Lozenge-shaped. See p. 90 of text, and fig. 7 at *b*, Plate XIX.

Middle Rail. See p. 93 in text, and *f*, fig. 4, Plate XX.

Mitre. See p. 93 of text, and for illustration see article in present section under term "Joints," and fig. 2, Plate V., at *e*.

Mortice. See p. 94 of text, and fig. 2, Plate XXVIII.

Mouldings. See p. 95 of text. The following illustrations give the contours of what are called the classical or Greek and Roman mouldings. Fig. 2, Plate XIII., illustrates the "fillet," sometimes called the "annulet" when used in cylindrical or circular work; its chief office is to connect the other mouldings together. The "bead" is illustrated in fig. 3, Plate XIII., the "torus" in fig. 4, and the "ovolo" or "quarter-round" in fig. 5. The "scotia" is shown in fig. 6, and the "cavetto," "hollow," "gorge," or "cove" moulding in fig. 7. The "cyma recta" is illustrated in fig. 1, Plate XIV., and the "cyma reversa" in fig. 2. Fig. 3 in same plate illustrates the cyma reversa when applied horizontally; this is also called the ogee moulding.

Mullions. See p. 95 in text; *b* and *c* in diagram G, fig. 1, Plate XX., are mullions.

Muntins. See p. 95 of text, and *c d* in fig. 4, Plate XX.

Newel. See p. 96 of text, and for illustration see "Staircases" in present section, and fig. 3, Plate XVII.

Notch Board. See p. 97 of text, and "Staircases" in present section, and fig. 5, Plate XVII.

Nut. See p. 97 of text, and fig. 1, Plate XXIII., in which *a* is elevation of the nut, *d d* section of it, and *a' a'* plan of square nut.

Oriel Window. See p. 98 of text, and diagram L, fig. 1, Plate XX.

Panels. See p. 100 of text. The following will illustrate the different kinds of panels as used in doors, window-shutters, dados, and the like. Fig. 5, Plate XIV., illustrates what is called a "square panel," or recessed at both sides. Fig. 6, same Plate, shows different kinds of the panels; that at *bb* is thicker in centre than at sides *cc*, being either "square," as at right-hand side, or finished with a moulding, as at left-hand. The second panel in same diagram is called a "flush," shown also in fig. 1, Plate XV., being recessed on one side only. The flat parts of a panel, as *cc*, surrounding the central raised portion as *bb*, fig. 6, Plate XIV., is termed the "margin." If there is a moulding, as at *feh* in the margin, the panel is called a "moulded raised" one. In "flush panels," as at *cbbcc*, fig. 6, Plate XIV., the moulding as at *c* on the left hand, or as *feh* in third diagram, is worked on the vertical sides of the panel, stopping at the horizontal rails of the door framing, as *gg* in fig. 1, Plate XV., and the panel is termed a "bead butt panel." If the panel has moulded ends as well as sides, with a moulding as at fig. 3, Plate XV., it is called a "bead flush" one. If the moulding is worked out of the solid wood of the panel at its sides, as at *feh* in fig. 6, Plate XIV., it is termed "stuck on"; the same term being applied when the moulding is cut out of the solid part of the styles, as at *aaa* in fig. 2, Plate XV.: this style is applicable only to "bead butt" panels. When the moulding is made separately and nailed on to the panel as at *f*, or to the "styles" as *c* in fig. 3, Plate XV., the moulding is said to be "laid on," and may be made to surround the panel ends as well as sides.

Partitions. See pp. 101 and 102 of text. The simplest form of partition is demonstrated in fig. 5, Plate XV. In fig. 1, Plate XVI., the class known as "framed," frequently as "quartered," is illustrated, in which *aa* is the "sill"; *a, b*, the "posts," otherwise called "double quarterings"; *cc* the "head"; *dd* and *f* the "framing posts," forming the sides of door-openings in the partition; *ee* are "struts" or "braces," to truss or strengthen the framing; *ii, hh*, are the "filling-in pieces," sometimes called "single quarterings," to distinguish them from the posts *ab* at the ends, termed "double quarterings."

Pavilion Roof. See p. 102 of text, and article in present section under term "Roofs," No. 6 in fig. 2, Plate XVII.

Pediment. See p. 103 of text; fig. 5, Plate VII., *aab*; and fig. 3, Plate XXI.

Pendent—Pendentive. See p. 103 of text; also fig. 6, Plate XXII.

Pier. See p. 105 of text, and also article "Arch" in this section for illustration, fig. 1, Plate XXII., at *h*.

Pointing. See p. 110 of text. Illustrations of pointing as explained generally in text are given in fig. 3, Plate XXV. The general appearance presented by walls "pointed" is shown in fig. 3, Plate IX., and fig. 2, Plate XXV. In upper diagram, *a*, fig. 3, Plate XXV., represents part of bricks in two contiguous "courses"; *b* the mortar between them. As this is generally irregular on the outer surface, part is taken out, as at *c*, with a sharp-pointed picker or tool, and this leaves a space which forms the basis of the pointing. Diagrams *d* and *e* represent "flue" and "tuck" pointing front-face in *f*; a style of pointing which gives an angular face is shown at *g*.

Punchcons. See page 113 of text, and *i* in fig. 1, Plate XVI.

Purlins. See p. 113 of text, and "Roofs" under present section; also fig. 5, Plate XXIV., in which *a* are the purlins secured to the rafters *b* as shown, *d* the common rafters.

Putlogs. See p. 113 of text, and fig. 8, Plate XXI., in which *a* is a putlog inserted at the inner end into the wall *bb*, and lashed to and supported by the pole *cc*.

Quirk and Quirked Bead. See p. 114 of text, and "Mouldings" in present section. For single quirks see *e* and *e'* in fig. 3, Plate V.

Rails. See p. 115 of text, and "Doors" and "Staircases" in present section, also *f, g*, fig. 4, Plate XX.

Rebate. See p. 116 of text, and "Joints" in present section. A half-lap joint is practically a rebate, as *ghi* in fig. 3, Plate XXVI., under "Reveal."

Relieving Arch. See p. 118 of text, and "Arch" in present section. (See fig. 6, Plate I.)

Retaining Wall. See p. 119 of text, and fig. 2, Plate XXVI., in which *ee* is a retaining wall.

Reveals. See p. 119 of text, and "Bond," in brickwork; also fig. 3, Plate XXVI. *k* is the door falling into the recess or reveal, *lm*, in the brickwork.

Roofs. See term on p. 122 of text. A roof in the popular acceptance of the term is the highest or upper part of a building, which, while it crowns the edifice more or less ornamentally, has for its main purpose the protecting of the interior from the weather, and this more from the character of the covering, such as slate, than from any association of ideas concerning the mode in which what appears externally is constructed, and what the materials used in the construction are. Technically a roof consists of two distinct parts: first, the covering, or that which is open or

displayed to the eye of the spectator; and second, the framing which supports or carries that covering. We illustrate in the first place by simple diagrams the different kinds of roofs as they are seen externally. We only name the leading forms given in fig. 2, Plate XVI. No. 1 represents the simplest of all roofs, the "lean-to" or "shed" roof; No. 5, the "gable-ended" or "span" roof; Nos. 2 and 4, the "hipped" or "hip" roof; No. 6, the "pavilion" or "coach-house" roof; No. 7, the "Mansard," "curb," or "Continental" roof; No. 11, the "semi-circular" or "barrel" roof; No. 12, the "Gothic" or "high-pitched" roof; No. 13, the "domical" or "hemispherical" roof; No. 15, the "conical" roof; No. 17, the "ogee" roof; No. 16, the "concave," resembling the Chinese or pagoda roof; and No. 18, the "Moresque" or "Arabic" roof. We now illustrate the leading forms of framework or framing used to support or carry the roof coverings. Roof framing is generally, almost universally, made of timber when used for domestic buildings. Iron is largely used, but chiefly for roofs of large span in public buildings, as railway stations and the like. The following illustrate the arrangement of the timbers in the leading forms of roofs, or, to use the proper designation, "trusses" or roof framing. Fig. 6, Plate XV., is the simplest form of roof, the "lean-to." Fig. 4, Plate XXVI., is the next simplest arrangement, termed the "span" roof—*b*, the rafters, *c*, *c*, walls, *a* the "collar beam." The end walls of buildings covered by simple span roofs are carried up to and finished at the same height and angle as the timbers, these end walls being termed the "gable" ends; hence the other term, "gabled" roof, to distinguish it from the "hip" roof, in which there are no gables, as illustrated in Nos. 2 and 4, fig. 2, Plate XVI. Fig. 1, Plate XXVIII., is the "king-post" truss or roof; *c*, *c* are the "principal rafters," carrying pieces *g*, *g*, the "purlins," which again carry the "common rafters" *h*, *h*; *a*, *a* the "tie-beam"; *a*, *f* the "king-post." A "queen-post" truss is illustrated in fig. 3, Plate XVI.; *a* and *b* are the "queen posts," *c* the "straining beam," *d* the "straining sill," *g* the "principal rafters," *f* the "braces" or "struts," *h* the "purlins," *i* the "common rafters," *k* the "pole plate," *l* the "ridge pole," and *e* the "tie-beam." Fig. 3, Plate XX., is a truss for a Gothic or high-pitched roof.

Rough Walling. See p. 125 of text, and "Bond" in walls in present section. See also fig. 1, Plate XXVII.)

Sash. See p. 129 of text, and "Windows" in this section; also *abb*, *cc*, diagram A, fig. 1, Plate XX.

Sash Bars. See p. 130 of text, and

"Windows" in present section. (See diagram K, fig. 1, Plate XX.: *a* the glass, *b* *c* the sash bar.)

Scaffold. See p. 132 of text, and fig. 6, Plate X.

Scarf Joint. See p. 133 of text, and fig. 5, Plate X.

Scheme Arch. See p. 134 of text, and "Arch" in present section, fig. 1, Plate I.

Screw Bolt. See p. 135 of text, and "Bolt" in present section. See *c* and *h* in fig. 1, Plate XXIII., which is called the "tail" or "shank" of the bolt, *f* the "head."

Segmental Arch. See p. 138 of text and "Arch" in present section.

Shoar—Shoar Up. See p. 142 of text, and fig. 2, Plate XXVII., in which the two upper diagrams illustrate the shoaring up or supporting of walls; the two lower illustrate the propping up of the side walls of excavations, as cutting for sewers.

Shutter (Window)—Shutter Boxings. See p. 143 of text; also "Windows" in the present section. (See figs. 4 and 5, Plate XIX.)

Shutters for Windows. For the general term see "Shutter" and "Shutter Boxing," p. 143 of text. The class of shutters most generally employed are termed "folding," inasmuch as they are made up of two or more parts according as the window is wide, the parts or divisions, called technically "flaps," being hinged to one another so as to fold up and go into little space, as shown at fig. 5, Plate XIX. The space into which the "flaps" fall is made either in a recess in the wall, as at fig. 5, Plate XIX., or in a casing, as in fig. 4, Plate XIX., projecting from the wall. In both plans the recess is termed a "shutter box." The "front flap" only, which has its face towards the room when the shutters are in the box, is panelled; the other flaps are plain. The first flap towards the room is termed the "front flap," as *ll*, fig. 5, Plate XIX.; when there are only two flaps the second is called the "back flap," as *cbb*; when there are three, as in the diagram—which shows the shutter boxing and shutters for a "Venetian window," diagram D, fig. 1, Plate XX. (see "Windows" in the present section of our work for this term)—the third is called the "centre flap," *ihh* in the drawing. What is called the "back lining" is the board or boards which line the casing in "shutter box," as *bbb*, fig. 5, Plate XIX., *d* being the "side lining." The panels of the "front flap" are at *mm*, fig. 5, Plate XIX., *jj* being the "styles" into which the panels are framed. When the shutter boxing is made to project from the wall, not made in a recess in the thickness of the wall, the side of the box in the room is ornamented or concealed by the moulded architrave, as at *i* *i* to the right of fig. 4, Plate XIX.

Skirting Board. See p. 147 of text, and "Dado" in present section. In fig. 6, Plate XXI., *ff* is the skirting board secured to wood bricks built into wall *gg*. See also fig. 3, Plate XXVII., in which *ee* is the skirting board secured to the "grounds" *aa*, *c'* plaster of the wall.

Sole—Sole Plate. See p. 151 of text, and "Partition" in present section; also *aa*, fig. 1, Plate XVI.

Spandril. See p. 153 of text, and fig. 1, Plate XXII., in which *abc* is the "spandril," the wall being built at the back, *d*, of the arch *dfg*, which back or line of extrados of the arch is called the "haunch" of the arch; *h* is the pier or abutment of the arch, *l* is a spandril ornamented.

Splay. See p. 155 of text; *n* in fig. 3, Plate XXVI., is a splayed brick.

Springing Stone of an Arch. See p. 157 of text. See also under "Arch" in present section, and *h* in fig. 1, Plate XXII.

Stairs and Staircases. See these terms also in p. 159 of text. Staircases are in practice divided into classes according to the way in which the steps are arranged within the space in what are called "flights," fig. 2, Plate XVIII. Stairs are, then, the "steps" by means of which the inclined planes leading from a low to a high level of the house can be more easily ascended or mounted than if the inclined planes presented only smooth or flat surfaces. Staircases are the spaces of a house in which the steps are inclosed. First, then, as to the "steps." Each step is divided into two parts, as in fig. 7, Plate XII.: the horizontal part on which the feet rest in ascending or descending is called, for clear reasons, technically the "tread," a very usual width for which is nine inches; the vertical part is called the "riser." Fig. 7, Plate XII., is the section of a stone step. When the front upper part of the "tread" is rounded off or moulded it is called a "nosing." In staircases of small houses the flight of steps is generally in one straight line from lower floor level to upper floor, which constitutes the "landing." In better-class houses, to make the flight less steep, the steps are divided into sections, one set going straight up for so many steps, then there is a flat platform space called a "landing." The next flight takes then another direction, opposite to that of the first flight, at the end of which second flight the second landing is placed, which in ordinary buildings is the upper or bedroom floor. Such stairs are called "platform stairs," or "staircases with landings," and are illustrated in fig. 4, Plate XVII. In this all the steps have their "treads" or upper surfaces of the same width, and are termed "flyers." When the direction of the steps has to be changed without the use of landings, the steps are

made to wind round by making the treads triangular. This, narrower at one end (the inner), towards the newel or well-hole, makes a step less safe and comfortable than flyers. These triangular steps are termed "winders," and are illustrated in fig. 2, Plate XVIII., at 7, 8, 9, 10, 11, and 12; all the other steps in this are "flyers." Fig. 4 in the same Plate is a section of this. The space between the walls in which the stair is placed is called the "well-hole." Where there is only one wall, the other ends of the steps being open to the lobby or hall, the outer ends of the steps are supported by pieces of timber, called "carriages" or "rough carriages," the ends of the steps being inserted into grooves cut in the inner sides of the carriages. The rough carriages are concealed by plain or panelled boarding, termed the "string board." The open side of the stairs is rendered safe by being provided with balusters, as shown in fig. 4, Plate XVIII. these carrying the "handrail."

Stile or Style. See p. 163 of text, and "Doors" in present section, *aa*, *bb*, fig. 4, Plate XX.

Strains. See p. 163 of text. The strains, sometimes also designated as "stresses," frequently as "pressures," to which materials used in construction are exposed are somewhat numerous. The strains, however, to which those used by builders, masons and carpenters are subject are chiefly three. First, the strain of "compression" (see text for description), tending to crush the object placed under it; or, if not, to crumble it up into fragments, to change its form, as by the bending of pieces of an elastic substance, as bars or columns of wrought iron, illustrated in fig. 4, Plate XVI. Stones are generally subjected to compression tending to crumble them up or disintegrate them, stone not being an elastic substance like iron. All pillars or columns are subjected to strains of compression; so also are the struts or braces, as *n*, fig. 2, Plate XVII., and the rafters *oo* in a roof truss, the strain being put upon them by their own weight and partly by the materials they support, as boarding or slates, etc., represented by the weight *o* acting in the direction of arrow *k*, and tending to push the walls *c*, *d*, outwards in the direction of arrows *f* and *g*. This tendency is counteracted by the tie beam *pq*, fig. 2, Plate XVII., which is thus subjected to a strain or stress of "tension" (see text and "Strains"), tending to pull its fibres asunder, as in the direction of arrows *f* and *g*. The different forms of tensile strains are illustrated in fig. 1, Plate XVII. The "tie beam," *pq* in fig. 2, is also subjected to the strain known as "transverse," or "cross strain," tending to break it in two by the centre bending downwards. In fig. 3 the cantilever beam, *ab*, projecting from and

built into a wall, *ee*, fig. 3, Plate XVIII., is liable to be broken off by its own weight or by materials placed upon it, by the shock of transverse or cross strains thrown upon it. To avoid this, and to resist the strain thrown upon the beam *ij*, the brace or strut *kl* is used, this being subjected to a strain of compression. The beam *ab*, weighted, is partly under a tensile strain; strictly speaking, a beam under a cross strain has its upper side subjected to compression, its lower to tension.

Stretcher. See p. 169 of text, and "Bond" in this section; also fig. 5, Plate III., *abcd*.

Striking Centres. See p. 169 of text, and fig. 1, Plate III., which illustrates the method usually adopted, by the double wedges *pq* lowering the tie-beam *o* and *j* of the centre proper, of which *aa* is the lower part, *bb* the upper, with the bolster pieces as *b, f, g, h*.

String-Board. See p. 169 of text, and "Stairs" and "Staircases" in this section, figs. 3 and 5, Plate XVII.

String-Piece. See p. 170 of text, and fig. 3, Plate XXII., in which *a* is part of one of the row of piles driven vertically into the soil, *b*, at one side of the dotted centre-line; *c* part of the horizontal platform termed the "string-piece," jointed to the head *d* of pile; *e* a piece longitudinally stretching along and secured to the row of piles to connect them together, and also to support end of string-piece *c*; this member *e* is called a "wale."

"Stuck on." See p. 171 of text, and the article under term "Panels" in this section, *f, e, h*, fig. 6, Plate XIV., and *b, e*, fig. 4, Plate XV.

Studs. See p. 171 of text, and "Partitions" for illustrations in the present section; *h, h, i*, fig. 1, Plate XVI.

Swallow-tail Joint. See p. 172 of text, and "Joints" in present section. See "Dovetail Joint" for illustration, and fig. 4, Plate VIII.

Tenon. See p. 177 of text, and "Joints" in this section for illustration, fig. 5, Plate IX., and fig. 2, Plate XXVIII.

Through Stones or Throughs. See p. 180 of text, and "Bond" in present section; *p* in fig. 2, Plate III., represents a "through."

Tongue. See p. 183 of text, and *h*, fig. 2, Plate IV.

Trammel. See p. 185 of text, and fig. 7, Plate XXII., in which *ab* is the straight-edge or long piece of thin, narrow wood, light but strong. This is centred in the soil or material by the pin *c*, while the curve or circle required is traced out by the point *d* of pin *e*.

Transom. See p. 185 of text and illustration in diagram B, fig. 1, Plate XX., in

which *c* is the vertical mullion, *d, e* the transom.

Tread, of a Stair. See p. 186 in text, and "Stairs" and "Staircases" in present section, *b, c*, fig. 7, Plate XII.

Truss. See p. 189 of text; also fig. 3, Plate XVI., and fig. 1, Plate XVII., and illustration of "trussed beam" in fig. 6, Plate XVII.

Uppers. See p. 194 of text, and *d* in fig. 8, Plate XXI.; also in this section under "Putlogs."

Valley Board or Valley Rafter. See p. 195 of text, and "Roofs" in present section; see also fig. 4, Plate XXII., in which *a, a* are the "valley rafters," *b* the "valley gutter."

Vaults. For description of general features and of various classes of vaults see p. 196 of text. The chief points connected with the construction of vaults and the lines they form internally and externally will be found described under the term "Groin" in the present section of this work. In that term we give, in fig. 1, Plate IX., an illustration of the intersection of two "barrel" vaults (see "Vault" in text, p. 196), from which it will be seen that the interior of a single barrel vault, terminated or stopped with flat or straight-lined ends, presents, when looked at from the inside, a concave surface sweeping in a curved line overhead, that line being clearly a semicircular line. If two barrel vaults intersect at right angles, as in fig. 2, Plate IX., the concavity at central point where they meet will be seen to be made up of four parts or sections, concave in surface, broad at the lower ends, but gradually narrowing till they all meet in a point right above the head of the spectator, who is presumed to be standing in the centre of the vault thus formed—the lines where the concave sections or parts meet being parts of ellipses. In a vault the section or plan of which is a circle, and the "section in elevation," or its elevation, is semicircular, the curve can in practical construction be formed only by a series of parts or sections, technically termed "gores." Those in a hemispherical vault, as in fig. 1, Plate XIX., are broad at base, as *d*, and gradually taper off as they are bent round to the curve of the vault till they meet in a point at the vertex or upper point of the semicircle, as shown by the converging lines *a, b, c*.

Venetian Window. See p. 198 of text, and also "Windows" in this section, and diagram G, fig. 1, Plate XX.

Voussairs. See p. 200 of text, and article "Arch" in present section; also *d*, fig. 1, Plate XXII.

Wall. See p. 201 of text. Fig. 2, Plate XIX., illustrates in sectional plan diagrams the varieties of walls in use. Diagram *aa* is what is called a straight-running or open wall, of uniform thickness and generally of uniform height throughout. The second class is that in which there is a part which runs either for a short or a long distance at right angles to the general line of wall. This part is termed a "return," and may either be at one end, as at *c* at end of wall *b*, or at both ends, as at *ee*. The third kind of wall is that, as in fourth diagram, in which a part as *g* projects at right angles a short length from face of wall *f*. This is generally called a "set-off" or "off-set." The fourth kind of wall is that in which recesses, as *i*, are built in face of wall. These may either run throughout the whole height, or may be cut off or stopped at any part of the height of wall, and this either with a flat or an arched top. These are frequently termed niches—always so when made with curved or circular back and hemispherical or hollow head. The fifth kind of wall is that in which the length of plain straight-running wall is terminated by piers, as *kk*. A sixth is that known as the "retaining wall," to support and back earth or soil behind it, as at *ll*. When walls are very high or tall, in place of being of equal thickness throughout their height, the thickness is gradually reduced, the reduction taking place at certain intervals—these points *a*, *b* and *c* (see fig. 3 in Plate XIX.), being termed offsets. In house walls or the like the "offsets" are all in the interior of the wall, so as to preserve the flat exterior face of the wall throughout. The offsets are made at the different floors. (See also "Bond" in this section for "hollow"

or "cavity wall," and building of walls generally.)

Wall Plate. See p. 201 of text, and for illustration article "Roofs" in the present section. The rectangular piece of timber on which the foot of the rafter in fig. 3, Plate XX., rests is the "wall plate"; *a b* in fig. 1, Plate XI., is also a wall plate, the end of the tie beam, *a b c d*, being secured to this, as shown.

Weather. See p. 203 of text, and fig. 4. Plate XXVII.: *cf* is the "weathering," *d* the "throating."

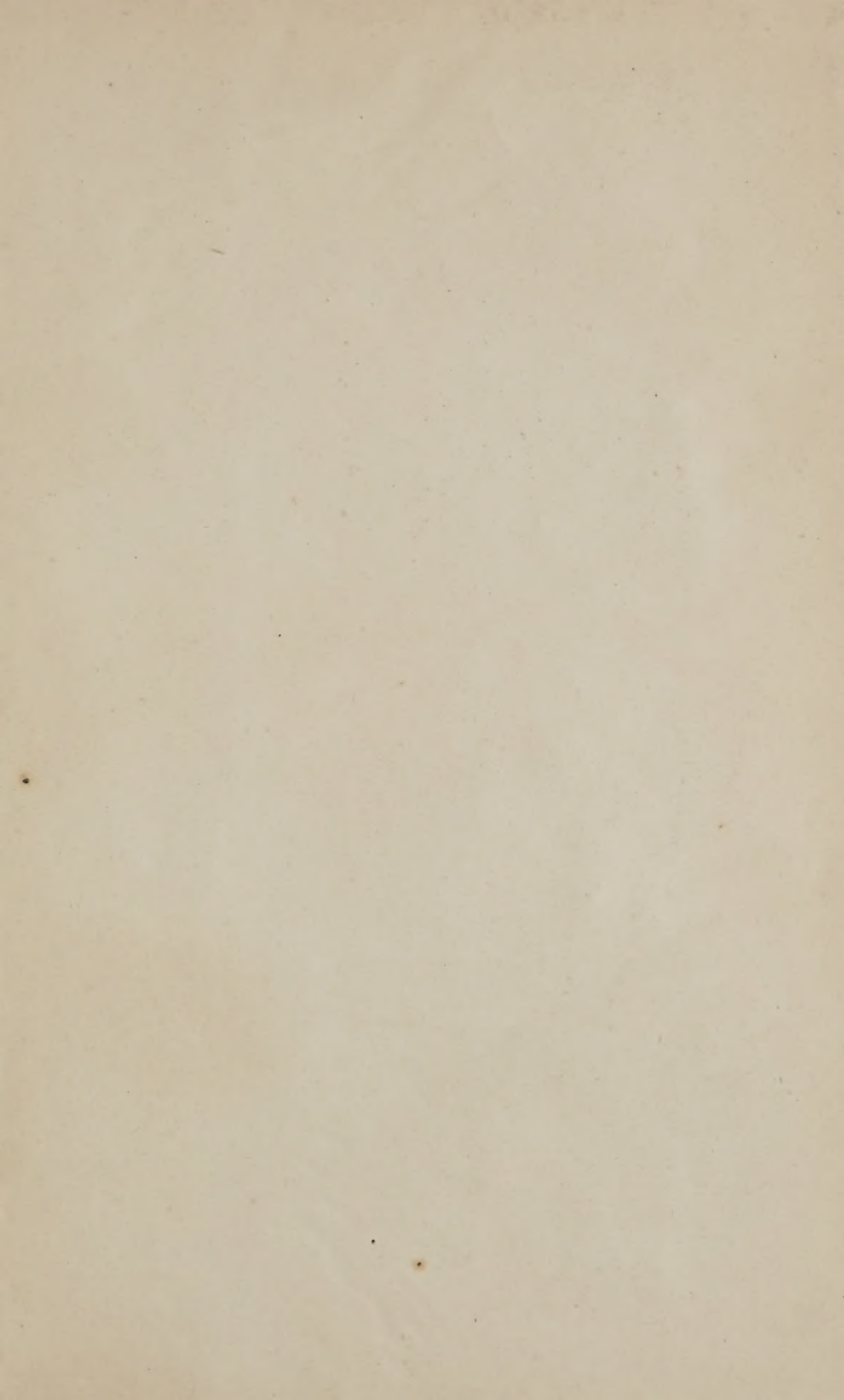
Well of a Staircase. See p. 204 of text, and "Stairs and Staircases" in present section. (See figs. 1, 2 and 4, Plate XVIII.)

Winder. See p. 206 of text, and "Stairs and Staircases" in present section. The angular-formed steps in fig. 2, Plate XVIII., are "winders"; the parallel-faced steps are "flyers."

Windows. See "Window" in text, p. 206; "Bay Window," p. 11; "Bow Window," p. 15; and "Dormer Window," p. 39. Fig. 1, Plate XX., gives diagrams of the various classes of windows. Diagram *A* is the "sash window"—*aa* the "upper," *bb* the "lower sheets," each divided into two "panes," separated by "sash bars"; *B* a "casement" or "French" window, the "lower sheets," *ab*, or "lights," opening right and left like a door—the "upper sheets," *fg*, generally fast; *C* a "V" window (plan below in *E*); *D* a "bay" window, with central light *a*, and two side "lights" at *bc*; *E* a "bow" window; *G* a "Venetian" window, with three lights, the central, *a*, wider than the two side lights, *bc*; *H* a "dormer" window—*ab* line of roof—front elevation in *I*; *L* an "oriel" window; *J* sash bars intersecting; *K* detail of sash bar.

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